

LITERATURE REVIEW
MEETING THE NEEDS OF
CHILDREN WITH
SPECIAL EDUCATIONAL NEEDS

Julie Dockrell
Nick Peacey
Ingrid Lunt

Institute of Education
University of London
20 Bedford Way
London WC1H 0AL



March 2002

TABLE OF CONTENTS

	Page
Introduction	1
Question 1 Incidence and Prevalence of Special Educational Needs	5
Question 2 Impact of Early Identification on Pupil Outcomes	16
Question 3 Factors Influencing the Identification of SEN	23
Question 5 What Evidence is there that Children with SEN are Routinely Excluded From School Activities?	28
Question 6 Exclusions, Truancy and Bullying and Young People With SEN	32
Question 7 What Research has been done around Characteristics and Practices of Schools that are both Inclusive and Effective in Terms of Pupil Attainment?	36
Question 8 What Research has been done to Develop Appropriate Outcome Measures for Children with SEN? What Measures Emerge from this Work and have any been Trialled Successfully?	41
Question 9 What Evidence is there on Destinations in Terms of Education, Employment and Training for Young People with Special Educational Needs on Leaving School?	44
Conclusions	49
Appendix A Research questions identified for the literature review	50

We are grateful to the support provided by the School of Psychology and Human Development, Institute of Education. Kerry Williams collected and collated information for the review. Kate Sym supported us in the final presentation of the report. We would like to thank the following for their valuable time and advice:

- Jennifer Beaumont - DfES
- Dr Verna Brandford - IoE
- John Brown - QCA
- Professor Doug Fuchs - Vanderbilt University, Nashville, Tennessee.
- Dr Jane Hurry - IoE
- Dr Glenys Jones - Birmingham University
- Dr Dawn Male - IoE
- Professor Carl Parsons - Christchurch College, Canterbury
- Elizabeth Setchim - RNID
- Dr Morag Stuart - IoE
- Professor George Thomson - University of Edinburgh

INTRODUCTION

Plan of the review

The literature review is structured around the 8 questions identified by the Audit Commission team [Appendix A]. For each question, a summary of the area, key conclusions and a reference list of key sources are provided. An annotated reference list for each question is included in the **long appendix** [very large document; not published on the internet but available on request from communications@audit-commission.gov.uk]. Comments about the tracer groups and links to the specific hypotheses are made where appropriate.

As the review progressed it became evident that there were central issues and themes that underpinned all the questions. To contextualise the review these are presented in an initial overview. The literature review ends with a summary of the main issues.

Overview

The review identified three areas of major concern. These dimensions both limit the conclusions that can be drawn currently and highlight aspects that need to be considered in future studies. The review has highlighted gaps in our current knowledge and conflicts for LEAs and schools. An overarching dilemma relates to the definition of special educational needs. Prevalence and outcome profiles are confounded by the data (or lack of it), problems with classification, the boundaries of the difficulties the children experience and the failure to consider special educational needs developmentally, contextually and culturally. These issues are considered under three different but complementary dimensions: methodology, planning and teachers and parents.

Methodological limitations

Many of the studies addressing children with special needs involve *small samples*. This affects the generalisability from the sample study to other groups of children with similar needs in other locations. Moreover, it means that there are few population-based perspectives on diversity and needs (the work on children with hearing difficulties is notable exception). Very few studies trace individuals over time, i.e. they are *not longitudinal* in nature.

This is particularly problematic since there is a general failure to monitor and address the issues of putting into practice 'effective' procedures at both the level of the individual and the level of the collective. As an example there are little data relating to the systematic monitoring of individual educational plans across a range of institutions and needs. Thus, it is impossible to evaluate the impact of particular difficulties, the efficacy of interventions and the ways in which educational and social needs change over time. This is particularly problematic since there is a *dearth of literature* for examining the experience of teenagers with special educational needs (secondary and post-16).

Finally, when we turn to intervention studies, in particular, they are often narrow in approach, considering only one model of treatment, with few attempts to model the RCTs used in health-based research. This constrains the ability to draw conclusions from *evidence-based practice*. For example, it is now advocated that we meet the speech and language needs of children in the classroom, but the process and efficacy of this approach has been little studied. Overall there seems little focus on the reliability and validity of assessment measures used both in qualitative and quantitative research (however, note the ESRC initiative by Ann Lewis and Jill Porter examining interviews for people with learning disabilities).

Two factors have contributed to this situation:

- The wish to give schools ownership of their systems for meeting SEN and thus flexibility. The sheer variety of the systems operating makes high-quality examination more difficult;
- The definitions of need, referred to above, are not only changing nationally (see the revised SEN Code of Practice) and vary from sector to sector (see Section 9) but can also differ widely in terms of severity between schools, depending partly on LEA policy on financial resources.

The conflicting incentives for identification in some systems have been widely noted and make comparisons hard. It may well be that as P scales (descriptions of attainment for those unlikely to reach level 2 of the National Curriculum by the age of 16 (DfES/QCA, 2001) become more thoroughly used and understood it will be easier to make comparisons nationally.

Planning decisions for inclusion

The factors noted above affect a whole range of school, local and national planning decisions. On the one hand, these require a clear understanding of the profile of individual and group needs to prioritise activities, secure resources, organise accurate outcome measures and evaluate planning decisions. On the other, the consideration of individual needs must be balanced by an appropriate concern for the environment in which all are learning. For most children this must include consideration of the acoustic environment (see Shields, Dockrell, Jeffrey and Tachmatzidis, 2002) and the quality of teaching, particularly in relation to ‘teacher talk’ and the quality of understanding teachers bring to ensuring all their pupils achieve (Dockrell and Lindsay, 2001).

This need for balance between the individual and the collective affects policy and practice throughout the education system from national policy to the classroom: where inclusion is reduced to a matter of individual needs policy it cannot succeed.

Teachers and parents

Inclusive education and the need to differentiate the curriculum place demands on teachers. Children with special educational needs may learn at different rates and may have different kinds of difficulties and aptitudes. There is increasing evidence that teachers do not feel prepared to meet these tasks (Dockrell and Lindsay, 2001; Scruggs and Mastropeiri, 1996; Wishart and Manning, 1996). For teachers to acknowledge and meet these needs, appropriate training is required. This includes both initial teacher training, post-qualification training and continuing professional development and must complement the factors involved in policy-making decisions. Training for heads and subject leaders/co-ordinators is as important as training for SENCOs if the demands of the revised Disability Discrimination Act are to be addressed.

The involvement of parents in the education of children with disabilities in the United Kingdom is considered not only a right, but also a necessary component of the delivery of effective and efficient provision (Department for Education and Employment 1997, 1998, 2000). Parental involvement covers many aspects including: the assessment process, where parents' knowledge of their child is an important source of information; decision-making, where parents have a right to receive full information, call their own experts, and express a preference for provision; and educational intervention, to which they may contribute. Parents also provide an important source of information on the working of the systems designed to meet their child's needs. Although such information concerns an individual child's pattern of experiences, patterns across individuals can be analysed and the results generalised to wider groups.

Parents have varying views about inclusion and service provision. Parents may lack knowledge of the services available (Wesley, Buysse and Tyndall, 1998), although intervention programmes at community level may redress these deficiencies (Buysse, Wesley and Skinner, 1999). Parents of typically developing children in inclusive schools have been found to hold more positive views about inclusion than parents of children in non-inclusive schools, and to believe that it was valuable to their child's development (Bennett, DeLuca and Bruns, 1997; Duhaney and Salend, 2000; Guralnick, et al., 1995). Parents of children with special needs have concerns about the quality of the special support available and the possibility of rejection of the child by peers (Petley, 1994; Riddell, Brown and Duffield, 1994). Further, there may be the need to fight for the provision necessary, a task which not all parents have the necessary resources to do.

CONCLUSIONS

As argued by Wedell (1978), Wedell and Lindsay (1980), and Lindsay (1995) children's developmental difficulties must be considered as a result of an interaction between their own strengths and weaknesses and those of the environment. Furthermore, the balance of each of these changes over time, as does the interaction between them. Wedell has termed this model one of compensatory interaction.

This overview demonstrates that the evaluation of the research evidence examining the diversity of children's needs must be: a) strategic; b) evidence based; and c) inclusive of the views of the various stakeholders.

REFERENCES

- Bennett, T., DeLuca, D. and Bruns, D. (1997). Putting inclusion into practice: Perspectives of teachers and parents. *Exceptional Children*, 64, 115-131.
- Buysse, V., Wesley, P.W. and Keyes, L. (1998). Implementing early childhood inclusion: Barrier and support factors. *Early Childhood Research Quarterly*, 13, 169-184.
- Dockrell, J.E. and Lindsay, G. (2001). Children with specific speech and language difficulties: The teachers' perspective. *Oxford Review of Education*, 27(3), 369-394.
- Duhaney, L.M.G. and Salend, S.J. (2000). Parental perceptions of inclusive special education placements. *Remedial and Special Education*, 21, 121-128.
- Guralnick, M.J., Connor, R.T. and Hammond, M. (1995). Parent perspectives of peer relationships and friendships in integrated and specialised programs. *American Journal on Mental Retardation*, 99(5), 457-476.
- Petley, K. (1994). An investigation into the experiences of parents and head teachers involved in the integration of primary aged children with Down's Syndrome into mainstream school. *Down's Syndrome: Research and Practice*, 2, 91-96.
- Riddell, S., Brown, S. and Duffield, J. (1994). Parental power and special educational needs: The case of specific learning difficulties. *British Educational Research Journal*, 20, 327-344.
- Scruggs, T. and Mastropeiri, M. (1996). Teacher Perceptions of Mainstreaming and Inclusion. *Exceptional Children*, 63(1), 59-74.
- Shield, B., Dockrell, J.E., Jeffrey, R. and Tachmatzidis, I. (2002). *The effects of noise on the attainments and cognitive performance of primary school children*. Report to the DOH/DETR.
- Wesley, P.W., Buysse, V. and Tyndall, S. (1997). Family and professional perspectives on early intervention: An exploration using focus groups. *Topics in Early Childhood Education*, 17, 435-456.
- Wishart, J.G. and Manning, G. (1996). Trainee teachers' attitudes to inclusive education for children with Down's Syndrome. *Journal of Intellectual Disability Research*, 40, 56-65.

1. INCIDENCE AND PREVALENCE OF SPECIAL EDUCATIONAL NEEDS

Information about statements and children with special educational needs can be found at <http://www.dfes.gov.uk/statistics/DB/SBU/b0301/index.html>. These data are drawn mainly from two sources: annual school census and the SEN2. The SEN2 collects information on children with statements on the census data in January. In contrast, the annual school census relies on school returns which are not robust at the LEA levels since the data submitted by some schools are known to be incomplete. Thus information about children with special needs without statements will be more reliable at the regional level than the LEA level but these data will be estimates that will vary according to local identification criteria.

In January 2001 3.1 % of all pupils (258,000) had statements of special educational needs. This is an increase from (3%) in 2000 and reflects a steady increase since 1990. In 2001 61% of these pupils were in maintained mainstream schools, 35% were either in maintained special schools or pupil referral units and 4% of pupils attended independent or non-maintained special schools (DfES, 2001). The percentage of the children with statements who are in mainstream schools has continued to increase, from 56% in 1996, to 60% in 2000 to the current figure of 61%. As a result the percentage of children in special schools or school referral units or independent schools has declined.

These numbers do not reflect the percentage of children who are identified as having special educational needs at earlier stages of the Code of Practice, either in school or when requiring additional advice (stage 3) (see also www.hertsdirect.org/infoadvice/childfamily/sen/sen_regional_project/ for difficulties in data collection exercises). Numbers of statements are clearly an underestimate as data from one London Borough (Islington) show. We examined indicative data for Y6 pupils for 2000. There were 1,878 children in Year 6 (eligible for KS2 SATs) in Islington attending 48 primary schools. 427 children were reported to have SEN, that is 22.7% of the year population. Interestingly, this matches the original estimations of incidence of need. Of the 48 schools in Islington 15 indicated that they had no children with SEN whereas the percentage of children reported in the remainder ranged from 6.3%-73.9%. However, the nature of the children's special needs is unclear since some schools reporting above average KS2 results had high percentages of children with SEN (e.g., 73.9% and 41.7% respectively).

An estimated 1,554,100 pupils had SEN without statements in January 2001. There was an increase in children without statements but with SEN from 15.1% in January 1997 to 18.8% in January 2001. These figures needed to be treated cautiously given the vagaries of identification procedures. Nonetheless, they mirror increases recorded in statements of special need.

Primary schools have a slightly higher proportion of pupils with SEN without statements than secondary schools, at 22.7% and 20.7% respectively. The DfES report indicates that a small number of schools identify more than half of their children as having SEN.

- The number of statemented pupils seriously underestimate the proportion of children with special needs.
- Prevalence varies both across and within boroughs.
- The criteria for identification are not transparent.

Despite claims for earlier identification of special educational needs an increase in problems at this developmental stage is not reflected in the numbers of children with statements. For all 11 areas of the country the percentage of pupils with statements increased from nursery (1.3%), through primary (1.7%) to secondary (2.5%). The largest increases between nursery and primary occurred in the North East, West Midlands and Outer London (average of 0.6% increase). The largest increase in statemented pupils as a percentage of all pupils from primary to secondary school occurred in Inner London (1.5%). This is 0.6% higher than the average change for other areas.

- Numbers of children who are formally assessed and provided with a statement of special needs increases with age.
- This increase is likely to reflect both the increase of problems identified in school (see below) and the failure of initial programmes to ameliorate the children's needs.

Children with statements are not representative of the population generally. Data from the DfES show that 38.6% of children with statements were eligible for free school meals. This compares with an average of 17% of the total population in England being eligible for free school meals. Boys are also over represented in the special school population (68%).

On average children with statements of special needs constituted 20% of the pupils in PRUs. 18% (1,494 pupils) of excluded pupils had statements of special educational needs.

Baseline assessment

Baseline assessment data at school entry could be used to identify children with special educational needs as they enter the formal educational system. However, the national scheme's status as an element in the process for identifying problems is not well established across infant and primary schools as a whole. Lindsay, Lewis and Phillips (2000) found that reception teachers are keen to use baseline assessment and find it helpful in planning their work, albeit that only 47% of schools stated they used baseline assessment for identification of special educational needs 'a great deal', a figure which rose to 72.4%

when ‘quite often’ respondents were included. Baseline assessment should not be seen as a panacea. These measures often lack the reliability and validity necessary for concurrent identification (Lindsay, 1998; Lindsay and Desforges, 1998).

Summary

Current statistical information does not provide an adequate estimate of the numbers of children experiencing additional special needs. Nor does it provide sufficient information about the range and extent of the children’s problems.

Wider Population Information

To supplement the information collected, a further analysis was carried out of sources of information related to incidence and prevalence. First, data were collated from wider population studies; where possible these data were collected from British sources. However, for comparative purposes and to fill gaps, data from North American and other sources were used. For the majority of special needs groupings, data were derived from DSM IV. These data are presented in Table 1 (long appendix). Each need is considered in terms of 7 different factors. Firstly, whether or not DSM IV criteria exist followed by the age it is possible to identify the problem, and whether there are general screening procedures that can be used to identify difficulties. Some difficulties become evident in formal school settings and these are discussed. Finally, we note current prevalence figures, problems with their interpretation and whether or not gender or socio-economic factors are related to identification.

These data indicate that:

- There are three main developmental phases when children’s educational needs can be identified – at birth, pre-school and in the early years of schooling.
- These identification phases differ for different problem types.
- Children with needs associated with a physical difficulty (e.g., sensory) are identified earlier and more reliably.
- Needs resulting from problems with varying criteria (e.g., autistic spectrum difficulties), those dependent on school resources and skills (e.g., moderate learning difficulties) and those related to threshold criteria (e.g., specific language difficulties) are subject to greater variation in estimates of prevalence.

To further extend the data on prevalence and changes in incidence studies of particular groups of children were considered. Sample size and the use of different identification parameters limit these studies. Nonetheless they provide important data that are not available from more general sources. The studies reviewed can be found in Table 1 (long appendix).

The studies highlight a number of key issues. For example, there is no central recording by the UK government of categories of disabilities or extent of need and few large scale epidemiological studies (e.g., Wing and Potter, 1999). There are considerable problems in clearly categorising a particular need (Law, et al., 2000). As would be predicted, where cut-off points on diagnostic criteria are more liberally interpreted higher prevalence rates occur. Yet the link between thresholds and educational need are not well established. Even for sensory difficulties there is considerable variation across LEAs in prevalence figures (ranging from 0.678 to 5.06 per 1000 live births, Clunie-Ross, 1997). Thus, identification for prevalence is influenced both by the nature of the problem and the expertise of the professionals.

For a significant majority of special needs there are no medical tests so:

- 1) Diagnostic criteria are in terms of behaviour (autism, EBD).
- 2) The behavioural criteria used vary over time (e.g., autism, Wing and Potter, 1999) and context (behaviour problems).
- 3) Diagnostic terms can be used in different ways (see Law et al., 2000).
- 4) Children may have combinations of difficulties e.g., co-morbidity (e.g., Henderson and Henderson, 2002; Lindsay and Dockrell, 2000); “those with highly specific deficits are the exception rather than the rule” (Hill, Bishop and Nimro-Smith, 1998); “co-morbidity is the rule rather than the exception” (Kaplan, et al., 1998).

Tracer groups

Autism

- 1) There is some indication from Californian data (to be regarded with caution as the authors state) that “the number of new intakes has, over the last few years, exceeded the annual estimate of persons likely to be newly diagnosed with autism spectrum disorders”.
- 2) However, some of the increase in number can be explained by wider criteria (Wing and Potter, 1999)
- 3) For increases in autistic spectrum disorder increases in number can be related to: a) greater awareness; b) changes in diagnostic criteria; and c) planning of provision.
- 4) Without properly researched studies the situation will remain unclear.

Learning disabilities

- 1) Terminology differences between UK and other countries - learning difficulty/disability used synonymously with intellectual ability/developmental delay.
- 2) Differences in prevalence rate reflect differences in terminology (Fryers, 1997).
- 3) The observed prevalence of Down’s syndrome (the commonest cause of mild and severe learning disabilities) has increased from 0.91 (1995) to 1.04 (1998) per 1,000 live births (Huang, et al., 1998).
- 4) Extremely low birth weight babies even with optimal socio-economic environments, have a 50% chance of requiring special educational services and 20% are significantly disabled. (USA, Halsey, et al., 1996).

- 5) Between 5 and 34 years of age, the prevalence of severe intellectual disability is three times higher among the Asian community compared to the non-Asian community (Emmerson, et al., 1997).
- 6) Characteristics associated with intellectual disability include low socio-economic status of the family (44-50% of intellectual disability) and low level of maternal formal education (20%). Other significant associations include maternal IQ less than 70, multiple births, low weight gain in pregnancy (<10 pounds), maternal anaemia and maternal urinary tract infection (Camp, et al., 1998).

Emotional and behavioural difficulties

- 1) Problems of definition – school staff rarely articulate a clear definition of EBD (Daniels, et al., 1999);
- 2) Contextual variation (home versus school).
- 3) Prevalence rate 20% of pre-school children.
- 4) Problems with under-reporting.
- 5) Rising trend associated with:
 - a) lowering of threshold for the identification of problems related to EBD;
 - b) increased numbers of children with other difficulties in mainstream schools whose needs are not met e.g., language and communications problems;
 - c) affected by whether children who are excluded are included in the numbers.

CONCLUSIONS

Knowledge about prevalence is vital if effective services are to be planned and provided at appropriate times. There is a need for new epidemiological work covering children at all levels of special need using reliable and valid tools to enable planning. An important dimension to consider is not the numbers of children with a specific need but the ways in which these needs do (or do not) have implications for additional support and intervention.

Table 1.1 Background information

	DSM IV ¹ criteria	Potential to identify	Screening procedures	Curriculum/schooling manifestation	Reliable and valid measures of identification	DSM –IV/other prevalence figures	Gender/socio-economic features
Severe/pro-found learning difficulties	✓	In utero and from birth	✓		✓ including genetic factors	Approximately 1% but rates depend on definitions, methods of ascertainment and population studied	Difficulties due to biological factors similar across social classes
Moderate learning difficulties	✓	Often indistinguishable until school/pre-school		✓	Some but identification context dependent		Over-representation of lower socio-economic classes
Specific learning difficulties (reading, mathematics)	✓	School age - after the age of 6-7 in Britain		✓	Some but identification context dependent and influenced by teaching processes	Reading disorder in America – 4% of school-aged children – prevalence rates depend on criteria. Estimate 1% mathematics disorder	60-80% of reading disorders males but procedures may be biased towards identifying males because of link with behaviour
Language and communication problems	✓	Varies – but reliable diagnoses from 3+	Some	✓	Increasing reliability of measures after 4 of saying who is	3> 10-15% school aged 3-7%	More common in males

¹ Diagnostic and statistical manual of mental disorders 4th edition. American Psychiatric Association 2000.

Autistic spectrum disorders	✓ and Asperger's	Variable Checklist for Autism in Toddlers (CHAT)	Some	Possible	not language delayed (Law, et al., 2000)	Autistic disorder 5 per 10,000 but higher and lower rates are reported - not clear whether identification procedures or actual prevalence Asperger's – no clear data	Autism 4 to 5 times higher in males Asperger's at least 5 times higher in males
Motor skills disorder	✓	Pre-school			✓ but variation in terminology and criteria	6% in children between ages of 5 to 11	Seen as a long-term problem and need to focus on strategies to circumvent difficulties (Henderson and Henderson, 2002). Three times more common in boys (Peter and Wright, 1999)
Emotional and Behaviour problems	✓	Not before ages 4 to 5		✓	Some context dependent	3-7% of school aged children dependent on method of ascertainment	Ratio varying from 2:1 to 9:1 depending on type
Visual impairment		From birth	✓	Possible	✓	2-5 per 10,000 (DHSS, 1988). 5 per cent of visually impaired children learn through the medium of Braille (RNIB, 1998)	

Hearing impairment		<p>From birth</p> <p>But at present most babies are not tested for deafness at birth and nearly half are not diagnosed until they are 18 months old.</p>	✓	Possible	✓	<p>1.3 children per 1,000 congenital sensorineural/mixed hearing impairment averaged over frequencies of greater than 40 decibels in the better ear (Hall, 1996)</p> <p>13/10,000 prelingually deaf constant for last 10 years (RNID, 2000)</p> <p>Conductive losses variable estimates depending on population</p>	
--------------------	--	--	---	----------	---	---	--

REFERENCES

- Arvidsson, T., Danielsson, B., Forsberg, P., Gillberg, C., Johansson, M. and Kjellgren, G. (1997). Autism in 3-6 year old children in a suburb of Goteburg, Sweden. *Autism*, 2, 163-174.
- Bamford, J., Davis, A., Boyle, J., Law, J., Chapman, S., Stewart Brown, S. and Sheldon, T.A. (1998). Preschool hearing, speech, language and vision screening. *Quality in Health Care*, 7, 240-247.
- California Health and Human Services Agency: Department of Developmental Services (1999). *Changes in the population of persons with autism and pervasive developmental disorders in California's developmental services system: 1987 through 1998: A report to the Legislature*, 1 March 1999. Sacramento, CA: California Health and Human Services Agency.
- Camp, B.W., Broman, S.H., Nichols, P.L. and Leff, M. (1998). Maternal and neonatal risk factors for mental retardation: defining the 'at-risk' child. *Early Human Development*, 50(2), 159-173.
- Carney, A.E. and Moeller, M.P. (1998). Treatment efficacy: Hearing loss in children. *Journal of Speech and Language Hearing Research*, 41, S61-S64.
- Clunies-Ross, L. and Franklin A. (1997). Where have all the children gone? An analysis of new statistical data on visual impairment amongst children in England, Scotland and Wales. *British Journal of Visual Impairment*, 15(2), 48-53.
- Daniels, H., Visser, J., Cole, T. and de Reybekill, N. (1999). *RB (90): Emotional and behavioural difficulties in mainstream schools*. London: DFES Publication.
- DFES (2001). *Bulletin (12/01): Statistics of Education: Special Educational Needs in England: January 2001*. London: HMSO.
- Ehlers, S. and Gillberg, C. (1993). The epidemiology of Asperger syndrome: a total population study. *Journal of Child Psychology and Psychiatry*, 34(8), 1327-1350.
- Emerson, E., Azmi, S., Hatton, C., Caine, A., Parrott, R. and Wolstenholme, J. (1997). Is there an increased prevalence of severe learning disabilities among British Asians? *Ethnicity and Health*, 2(4), 317-321.
- Fantuzzo, J., Stoltzfus, J., Lutz, M.N., Hamlet, H., Balraj, T., Turner, C. and Mosca, S. (1999). An evaluation of special needs referral process for low-income preschool children with emotional and behavioural problems. *Early Childhood Research Quarterly*, 14(4), 465-482.
- Fombonne, E. (1997). Epidemiological studies of autism. In F. Volkmar (Ed.), *Autism and Developmental Disorders*. New York: Cambridge University Press.
- Fryers T. (1997). Epidemiology in relation to community and residential services. *Current Opinion in Psychiatry*, 10, 340-53.
- Halsey, C.L., Collin, M.F. and Anderson, C.L. (1996). Extremely low-birth-weight children and their peers. A comparison of school-age outcomes. *Archives of Pediatrics and Adolescent Medicine*, 150(8), 790-794.

- Healey, W.C., Ackerman, B.L., Chappel, C.R., Perrin, K.L. and Stormer, J. (1981). *The prevalence of communicative disorders: A review of the literature*. Rockville: American Speech and Hearing Association.
- Hill, E.L., Bishop, D.V.M. and Nimro-Smith, I. (1998). Representational gestures in Developmental Coordination Disorder and specific language impairment: Error types and the reliability of ratings. *Human Movement Science*, 17, 655-679.
- Howlin, P. (1998). Practitioner review: Psychological and educational treatments for autism. *Journal of Child Psychology and Psychiatry and Applied Disciplines*, 39(3), 307-322.
- Huang, T., Watt, H.C., Wald, N.J., Morris, J.K., Mutton, D. and Alberman, E. (1998). Birth prevalence of Down's syndrome in England and Wales 1990 to 1997. *Journal of Medical Screening*, 5, 213-214.
- Jarbrink, K. and Knapp, M. (2001). The economic impact of autism in Britain. *Autism*, 5(1), 7-22.
- Kaplan, B.J., Wilson, B.N., Dewey, D. and Crawford, S.G. (1998). DCD may not be a discrete disorder. *Human Movement Science*, 17, 471-490.
- Law, J., Boyle, J., Harris, F., Harkness, A. and Nye, C. (2000). Prevalence and natural history of primary speech and language delay: Findings from a systematic review of the literature. *International Journal of Language and Communication Disorders*, 35(2), 165-188.
- Lindsay, G. (1998). Baseline assessment: a positive or malign influence? In B. Norwich and G. Lindsay (Eds), *Baseline Assessment*. Tamworth: NASEN.
- Lindsay, G. and Desforges, M. (1998). *Baseline Assessment: Practice, Problems and Possibilities*, London: David Fulton.
- Lindsay, G. and Dockrell, J. (2000). The behaviour and self-esteem of children with specific speech and language difficulties. *British Journal of Educational Psychology*, 70, 583-601.
- Lindsay, G., Lewis, A. and Phillips, E. (2000). *Evaluation of Accredited Baseline Assessment Schemes 1999/2000*. Coventry: CEDAR, University of Warwick.
- Lotter, V. (1996). Epidemiology of autistic conditions in young children. 1: Prevalence. *Social Psychiatry*, 1, 163-173.
- Male, D.B. (1996). Who goes to SLD schools? *Journal of Applied Research in Intellectual Disabilities*, 9(4), 307-323.
- Manset, G. and Semmel, M.I. (1997). Are inclusive programs for students with mild disabilities effective? A comparative review of model programs. *Journal of Special Education*, 31(2), 155-180.
- Miller, D. and Miller, C. (Unpublished). Educational provision for children with language and communication difficulties. *Unpublished*.
- Patterson, A. and Rafferty, A. (2001). Making it to work: Towards employment for young adult with Autism. *International Journal of Language and Communication Disorders*, 32(2), 475-480.
- Reschly, D.J. (1996). Identification and assessment of students with disabilities. *Future of Children*, 6(1), 40-53.

- Silva, P.A., Williams, S.M. and McGee, R. (1987). A longitudinal study of children with developmental language delay at age three: later intelligence, reading and behaviour problems. *Developmental Medicine and Child Neurology*, 29, 630-640.
- Thomson, G.O.B., Ward, K.M. and Wishart, J.G. (1995). The transition to adulthood for children with Down's syndrome. *Disability and Society*, 10(3), 325-340.
- Walker, E., Tobin, M. and McKennell, A. (1992). *Blind and partially sighted children in Britain: The RNIB Survey Vol. 2*. London: HMSO.
- Wing, L. and Gould, J. (1979). Severe impairments of social interaction; and associated abnormalities in children; epidemiology and classification. *Journal of Autism and Developmental Disorders*, 9(1), 11-29.
- Wing, L. and Potter, D. (1999). *Autistic spectrum disorders*. <http://www.autism99.org>.

2. IMPACT OF EARLY IDENTIFICATION ON PUPIL OUTCOMES

When we consider the impact of early identification it is important to acknowledge the importance of four separate dimensions:

- 1) The reliability and consistent use of identification procedures;
- 2) The ways in which identification leads to appropriate intervention;
- 3) The impact of early identification in terms of meeting parents' needs and thereby providing a more conducive developmental environment for the child;
- 4) The ways in which identification procedures can enhance appropriate provision of resources and practices for inclusion.

The issues surrounding identification procedures have been discussed under question 1 and will not be revisited here. The majority of the data that exist related to 2) with some studies considering 3). There is little formal information pertaining to 4).

Early intervention

The aim of early intervention is to optimise children's learning by: a) addressing developmental problems; and b) utilising their strengths to circumvent their difficulties and thereby improve their well being and functioning. Identifying the appropriate mechanisms to effect these objectives is not straightforward. Many of the early intervention studies are subject to methodological limitations (see Jordan, James and Murray, 1998). However, where a clear evidence-based intervention has been implemented positive effects are evident. For example Burchinal, et al. (2000) examined the quality of centre-based day care for 89 African American children. Results indicated that higher quality child care was related to measures of cognitive development, language development and communication skills even after adjusting for selected child and family characteristics. Recommended levels of child-adult ratios and teacher training were also key factors (Burchinal, et al., 2000).

An evidence-based intervention depends on the accurate identification of the target group, an understanding of the processes that limit progress and an independent evaluation of an intervention in comparison with a placebo control group (see Law, et al., 1998). Thus, for example, with reading difficulties there is abundant evidence that phonological limitations result in decoding problems. Interventions designed to target phonological problems have been shown to improve decoding skills (Stuart, 1999). For many developmental difficulties the identification of the population is problematic and the factors that impede development can be elusive. These factors can be at the level of the child, the classroom or the educational system (see Dockrell and McShane, 1993).

The clearest examples of the efficacy of early identification come from research with the children who have hearing impairments, where there are reliable and valid identification processes.

Hearing impairment

Congenital hearing loss, without intervention, will profoundly affect development. It is anticipated that neonatal hearing screening will improve outcomes for individuals who are congenitally deaf. The screening procedures should allow the provision of appropriate support early.

Few studies have addressed rates of learning and long-term outcomes, but existing data suggest that enriched programmes provide some children who have a hearing loss with the ability to overcome developmental lags in language and academic skills (Carney and Moeller, 1998). More recently, Moeller (2001) has demonstrated that significantly better language scores were associated with early enrolment in intervention. High levels of family involvement correlated with positive language outcomes, and, conversely, limited family involvement was associated with significant child language delays at 5 years of age, especially when enrolment in intervention was late. The results indicate that success can be achieved when early identification is paired with early interventions that actively involve families.

Complementary data is available when cochlear implants are considered. Children with cochlear implants have increased educational opportunities, with those children in mainstream and those who have moved toward mainstream demonstrating improved progress in speech perception ability (Daya, Ashley, Gysin and Papsin, 2000). When implants occurred early (prior to 5) rapid improvement was noted in speech production and language acquisition, at levels that exceed those reported in the literature for children implanted at older ages (Brackett and Zara, 1998). We acknowledge that there are both medical and ethical concerns surrounding cochlear implants.

Early identification will not yield the anticipated outcome gains without early intervention. The community speech and language pathologist, audiologist, paediatrician, or infant educator, in consultation with the referral audiologist, play key roles in counselling the family and identifying appropriate services (Samsong-Fang, Simons-McCandless and Shelton, 2000).

Further studies

A range of studies have demonstrated that high-quality centre-based intervention can benefit a child's cognitive, linguistic and social skills, not only in the short term (Burchinal, et al., 1996; Field, et al., 1988), but also in the long term (Andersson, 1989, 1992). Programmes that begin in the first year of life have shown immediate and strong effects on children's IQ scores (Brooks-Gunn, et al., 1992; Campbell and Ramey, 1994).

Early interventions interact with the nature of the child's difficulties. Positive outcomes have been shown to be good for certain categories of special needs (autism, mild language delay), but not for young pre-school children with severe disabilities who might not yet benefit from formal instruction (see Castro and Mastropieri, 1986; Guralnick, 1991).

Models based on inclusive programs and segregated early interventions achieve similar improvements in terms of the children's intellectual and language development and sustained group play (Bruder and Staff, 1998; Cole, et al., 1991; Cooke, et al., 1981; Harris, et al., 1990; Mills, et al., 1998). Studies have also shown that inclusion can increase social interaction (Guralnick, 1981; Guralnick and Groom, 1987, 1988; Guralnick, et al., 1995; Hauser-Cram, et al., 1993, Law, et al., 2002) and the improvement gains for social interaction are more significant for children with less severe disabilities. Finally, the number of studies have outlined the feature that "one size does not fit" all (Mills, et al., 1998). It is clear that intervention programmes need to be tailored to educational needs.

A complete overview of the current state of knowledge about intervention is contained in Brooks-Gunn (2001). There remains an absence of experimental studies at the primary school level but there are some indications that intervention at this point can influence children's achievement in academic domains (see Stuart's 1999 evidence about reading).

Early interventions

- Can result in improvements in primary area of need;
- Have been demonstrated to positively affect secondary associated problems (Law, et al., 2001; Silver and Oates, 2001);
- Appropriate early identification adapted to the child's needs leads to improved outcomes (Howlin, 1998).

Tracer groups

- Children with autism show marked gains from intervention in terms of language skills, social behaviour and decreased secondary symptoms (Jordan, Jones and Murray, 1998; Rogers, 1996);
- For children with emotional and behavioural difficulties the focus has been on the development of social skills. Most studies produce small changes and some studies produce negative effects (Quinn, et al., 1999). We need to ask whether the appropriate areas of need are being targeted.
- Increased levels of structured support for children with moderate learning difficulties result in improved learning (Lamb, et al., 1997). Moreover, for children with Down's syndrome there is evidence that intervention results in a slower decline in IQ over time (Shonkoff, et al., 1992).

CONCLUSIONS AND CONSIDERATIONS

Early identification is only useful if it leads to intervention or support. There is increasing evidence that targeted early interventions can make a difference in terms of the child's primary problems and, also, other associated needs. Appropriate support for parents (especially at pre-school - see DfES, early intervention report) can enhance the effect of the interventions. However, there is little evidence in terms of how identification leads to appropriate planning of provision maintenance of support.

Our current understanding of the longer term effects of early identification and intervention are limited because:

- 1) There are individual variations in relation to treatment responsiveness e.g. (Howlin, 1998; Lamb, et al., 1997; Smith 1999);
- 2) There is a lack of large samples in intervention studies to allow analysis of effect size (Law, 1997; Smith 1997);
- 3) There are few randomised trials, especially at school age (Smith, 1997; conclusion from review on ASD children);
- 4) Many studies fail to include blind examiners (Lamb et al, 1997; Smith, 1997);
- 5) There is extrapolation of findings from small scale studies and subsequent general use of these in treatment programmes (Howlin, 1987; Law et al, 1997).

REFERENCES

- Barnett, W.S. (1995). Long-term effect of early childhood programs on cognitive and school outcomes. *Future of Children*, 5(3), 25-50.
- Brackett, D. and Zara, C.V. (1998). Communication outcomes related to early implantation. *American Journal of Otology*, 19(4), 453-460.
- Brooks-Gunn, J., Liaw, F. and Klebanov, P.K. (1992). Effects of early intervention on low birth weight preterm infants: What aspects of cognitive functioning are enhanced. *Journal of Pediatrics*, 120, 350-359.
- Burchinal, M.R., Roberts, J.E., Riggins, R., Zeisel, S.A., Neebe, E. and Bryant, D. (2000). Relating quality of center-based child care to early cognitive and language development longitudinally. *Child Development*, 71, 339-357.
- Carney, A.E. and Moeller, M.P. (1998). Treatment efficacy: Hearing loss in children. *Journal of Speech and Language Hearing Research*, 41, S61-S64.
- Campbell, F.A. and Ramey, C.T. (1994). Effects of early intervention on intellectual and academic achievement: A follow-up study from low-income families. *Child Development*, 65, 684-698.
- Daya, H., Ashley, A., Gysin, C. and Papsin, B.C. (2000). Changes in educational placement and speech perception ability after cochlear implantation in children. *Journal of Otolaryngology*, 29(4), 224-228
- Dawson, G. and Osterling, J. (1997). Early intervention in autism. In M. Guralnick (Ed.), *The effectiveness of early intervention*. Baltimore: Brookes.
- Farron, D.C. (1990). Effects of intervention with disadvantaged and disabled children: A ten-year review. In D. Meisels and J. Shonkoff (Eds), *Handbook of early childhood intervention*. Cambridge: Cambridge University Press.
- RNID Guidelines. *Effective early intervention for deaf children 0-5 and their families*. RNID publication.
- Guralnick, M.J. (1994). Mothers' perceptions of the benefits and drawbacks of early childhood mainstreaming. *Journal of Early Intervention*, 18(2), 168-183.
- Guralnick, M.J., Connor, R.T. and Hammond, M. (1995). Parent perspectives of peer relationships and friendships in integrated and specialised programs. *American Journal on Mental Retardation*, 99(5), 457-476.
- Harris, S.R. (1997). The effectiveness of early intervention for children with cerebral palsy and related motor disabilities. In M. Guralnick (Ed.), *The effectiveness of early intervention*. Baltimore: Brookes.
- Howlin, P. (1998). Practitioner review: Psychological and educational treatments for autism. *Journal of Child Psychology and Psychiatry and Applied Disciplines*, 39(3), 307-322.
- Jordan, R., Jones, G. and Murray, D. (1998). *DfES Publication (RR77) Educational interventions for children with Autism: A literature review of recent and current research*. Birmingham: University of Birmingham.
- Lamb, S.J., Bibby, P.A., Wood, D.J. and Leyden, G. (1997). Communication skills, educational achievement and biographic characteristics of children with moderate learning difficulties. *European Journal of Psychology of Education*, 12, 400-414.

- Law, J., Boyle, J., Harris, F., Harkness, A. and Nye, C. (1998). Screening for speech and language delay: a systematic review of the literature. *Health Technology Assessment*, 9(2), 1-184.
- Law, J., Dockrell, J., Williams, K. and Seeff, B. (Submitted to I CAN Oct 2001). The I CAN Early Years Evaluation project. *I CAN Publication*.
- Leonard, L. (1981). Facilitating linguistic skills in children with specific language impairment. *Applied Psycholinguistics*, 2, 89-118.
- Lindsay, G. (1995) Early identification of special educational needs. In L. Lunt, B. Norwich with V. Varma (Eds.) *Psychology and Education for Special Needs*. Aldershot: Arena.
- Meisels, D. and Shonkoff, J. (1990). *Handbook of early childhood intervention*. NY: Cambridge University Press.
- Moeller, M.P. (2002). Early intervention and language development in children who are deaf and hard of hearing. *Pediatrics* 2000, 106(3), U83-U91
- Nye, C., Foster, S. and Seaman, D. (1987). Effectiveness of language intervention with the language/learning disabled. *Journal of Speech and Hearing Disorders*, 52, 348-357.
- Quinn, M.M., Kavale, K.A., Mathur, S.R., Rutherford, R.B. and Forness, S.R. (1999). A meta-analysis of social skill interventions for students with emotional or behavioural disorders. *Journal of Emotional and Behavioural Disorders*, 7(1), 54-64.
- Rittenhouse, R.K., White, K., Lowitzer, C. and Shisler, L. (1990). The cost and benefits of providing early intervention to very young, severely hearing-impaired children in the United States: The conceptual outline of a longitudinal research study and some preliminary findings. *British Journal of Disorders of Communication*, 25, 195-208.
- Rogers, S.J. (1996). Brief report: Early intervention in Autism. *Journal of Autism and Developmental Disorders*, 26, 243-246.
- Samsong-Fang, L., Simons-McCandless, M. and Shelton, C. (2000). Controversies in the field of hearing impairment: Early identification, educational methods, and cochlear implants. *Infants and Young Children*, 12(4), 77-88.
- Shonkoff, J.P and Meisels, S.J. (Eds.) (2000). *Handbook of early intervention* 2nd ed. New York: Cambridge University Press.
- Silver, M. and Oakes, P. (2001). Evaluation of a new computer intervention to teach people with Autism or Asperger syndrome to recognise and predict emotion in others. *Autism*, 5(3), 299-316.
- Spiker, D. and Hopmann, M.R. (1997). The effectiveness of early intervention for children with Down's Syndrome. In M. Guralnick (Ed.), *The effectiveness of early intervention*. Baltimore: Brookes.
- Stuart, M. (1999). Getting ready for reading: Early phoneme awareness and phonics teaching improved reading and spelling in inner-city second language learners. *British Journal of Educational Psychology*, 69, 587-605.
- Sylva, K., Hurry, J. and Peters, S. (1997). Why is reading recovery successful? A Vygotskian critique of an early reading intervention. *European Journal of Psychology of Education*, 12(4), 373-384.
- Wedell, K. (1978). *Early identification and compensatory education*. Paper presented at the NATO International Conference on Learning Disorders, Ottawa.

Wedell, K. and Lindsay, G. (1980). Early identification procedures: What have we learned? *Remedial Education, 15*, 130-135.

3. FACTORS INFLUENCING THE IDENTIFICATION OF SEN

A number of the factors influencing the likelihood of identification have been noted under question 1. In general, however, there has been little active and detailed consideration of inequalities in the identification of special educational need (Vardill, 1996).

The data presented in response to question 1 suggested that the nature of the child's difficulty had a significant effect on the likelihood of identification, with those problems with observable, measurable dimensions providing reliable and valid baseline indicators of incidence. It was also noted that the numbers of children eligible for free school meals were over-represented in the group of children who received statements. There were also indications that professional awareness and expertise influence identification. Lindsay, et al. (2002) report that the ways in which children's difficulties are described can be determined by the nature of the provision available (e.g., specific language impairment versus autistic spectrum disorder). Resource factors may impact on the needs identified in a child's statement of special needs. In addition, there is suggestive evidence that powerful pressure groups for particular types of problems (Mittler, 1999) result in skewed distribution of resources.

In this section we consider additional information that we have collected in relation to biases in identification.

Location

- Reports of geographical differences in patterns of special needs are common (in Britain, US, Norway). Sacker, et al. (2001) note that there is evidence that children in the South East are more likely than the average to be receiving help. Further specific differences are also recorded. There is "widespread regional variation in unmet need, with children in the North region 4½ times as likely to have unmet needs as children in the East and West Riding" p. 269.
- The amount of resources allocated may be biased by differences in school organisation (Visle and Langfelt, 1996) neighbourhood norms (Keogh, 1977) and teacher perceptions of test score norms (Huebner, 1988).
- Children in schools with fewer children in need of help were more likely to be receiving help, and children in schools where there was a greater overall level of need were less likely to be receiving help (Sacker, 2001).

Social class

Data pertaining to social class is mostly North American and is inconclusive – indicating under and over referral from lower SES groups but these data are limited (see Sacker et. al, 2001)

Indirect evidence suggests that in Britain:

- LEAs with more socially deprived populations tend to have lower levels of appeals to the special needs tribunals about statements of special educational needs (Evans, 1999).
- Male's (1996) research with headteachers in schools for children with MLD indicates an over-representation of parents from unskilled and unwaged households.

Occupational status of principal parental wage-earners: headteachers' perceptions of comparability to ordinary schools in the area (Male, 1996: p.40)

Status	Comparable	Over-Represented	Under-Represented
Professional	20.5	0	79.5
Managerial/technical	25	0	75
Skilled/semi-skilled	50	4.5	45.5
Unskilled	43	52.5	4.5
Unwaged	25	75	0

Direct evidence in Britain from the NCDS and the BCS70 (Sacker, et al., 2001) indicates that

- Children with fathers in manual occupations were more likely to be in receipt of special help;
- Children with fathers in non-manual occupations were less likely to be receiving help than the average;
- After adjusting for educational and psychosocial adjustment, social class was still a significant predictor but the gradient was reversed: children with fathers in professional occupations were more likely than average to be in receipt of special help in school given their level of educational and psychosocial problems.

Gender

- The excess of boys in special needs provision is explained in terms of
 - 1) Gender bias in teacher and professional referral;
 - 2) The nature of the population;
 - 3) Combination of 1 and 2 at different points (Cline and Ertubey, 1997).
- Patterns of referral were found to consistently favour boys in the Daniels et al. study (1999) although there was considerable school variation.
- Approximately 60% of the boys identified in the Sacker et al. (2001) study were boys.
- In the Sacker study a boy was more likely to be referred even "if his reading, mathematics, and psychosocial adjustment profile, social class of family, school composition and educational region matched that of a girl" (p. 271).
- Boys are more likely to be identified for behavioural reasons (Croll and Moses, 2000).

- In some smaller-scale studies girls who are identified with problems have markedly greater levels of difficulty than boys in the sample (Dockrell and Lindsay, 1998).

Ethnicity

- Complex and sensitive (Croll and Moses, 2000).
- Male's (1996) data from MLD schools implies an over-representation of Asian children in terms of headteachers' perceptions but note 12% state that this group is under-represented.

Pupil ethnicity: headteachers' perception of comparability with ordinary schools in the area (Male, 1996:p.40)

Ethnicity	Comparable	Over-Represented	Under-Represented
White	94	4	2
Black	83.5	2	14.5
Asian	62.5	25	12.5
Other	87.5	0	12.5

Interpretation of these data needs to consider population prevalence rates (as discussed for question 1). For example, between 5 and 34 years of age, the prevalence of severe intellectual disability is three times higher among the Asian community compared to the non-Asian community (Emmerson, et al., 1997)

- Gender differences are more marked in the EBD category for Afro-Caribbean youth (Cooper, et al., 1991; Daniels, et al., 1996).
- Ethnicity and minority language speakers in an LEA influence rates of tribunal appeals (Evans, 1999).

CONCLUSIONS

The data from all the studies cited have limitations. Either they are collected from North American samples so the specific factors may not generalise to the UK or they are very small scale. The largest British study reported (Sacker, et al., 2001) is limited because of the ways in which the data was collected (e.g., teachers judgements may have been influenced by the instruments used). Nonetheless, as a result of converging evidence the following conclusions can be drawn

- Girls are disadvantaged in terms of identification of needs;
- Given equivalent test scores children from professional homes are more likely to get help;
- Schools with the greatest requirement for special needs support are least able to supply it. This may reflect financial constraints (Sacker, et al., 2001);
- The implications for the needs of children who are at the boundaries of particular types of difficulty may be differentially affected when resources are limited.

REFERENCES

- Bussing, R., Schoenberg, N.E., Rogers, K.M., Sima, B.T. and Angus, S. (1998). Explanatory models of ADHD: Do they differ by ethnicity, child gender or treatment status? *Journal of Emotional and Behavioural Disorders*, 6(4), 233-242.
- Cline, T. and Ertubey, C. (1997). The impact of gender on primary teachers' evaluation of children's difficulties in school. *British Journal of Special Education*, 67(4), 447-456.
- Comer, J.P. (1980). *School power: Implication of an intervention project*. New York: Free Press.
- Cooper, P., Upton, G. and Smith, C. (1991). Ethnic minority and gender distribution among staff and pupils in facilities in England and Wales. *British Journal of Sociology of Education*, 12(1).
- Croll, L. and Moses, D. (2000). *Special needs in the primary school: One in five?* London, Cassell.
- Daniels, H. (1998). Researching issues of gender in special needs education. In P. Clough and L. Barton (Eds.), *Articulating with difficulty*. London: Sage.
- Daniels, H., Creese, A., Fielding, S., Hey, V., Leonard, D. and Smith, M. (2001). The gendering of social practices in special needs education. In M. Hedegaard (Ed.), *Learning in classrooms*. Arhus: Arhus University.
- Daniels, H., Hey, V., Leonard, D. and Smith, M. (1996). Gender and special needs provision in mainstream schooling. *ESRC End of Award Report*.
- Evans, J. (1999). The impact of the Special Educational Needs Tribunal on local education authorities' policy and planning for special educational needs. *Support for Learning* 14, 74-79.
- Fantuzzo, J., Stoltzfus, J., Lutz, M.N., Hamlet, H., Balraj, T., Turner, C. and Mosca, S. (1999). An evaluation of special needs referral process for low-income preschool children with emotional and behavioural problems. *Early Childhood Research Quarterly*, 14(4), 465-482.
- Heubner, E.S. (1988). Bias in teachers' special education decisions as a function of test score reporting format. *Journal of Educational Research*, 81, 217-220.
- Keogh, B.K. (1977). Early ID: Selective perception or perceptive selection. *Academic Therapy*, 12(3), 267-274.
- Male, D. (1996). Who goes to MLD schools? *British Journal of Special Education*, 23(1), 35-41.
- Mittler, P. (1999). Equal opportunities for whom? *British Journal of Special Education*, 26, 3-7.
- Mortimore, P. and Whitty, G. (2000). *Can school improvement overcome the effects of disadvantage?* London: University of London, Institute of Education.
- Reschly, D.J. (1996). Identification and assessment of students with disabilities. *Future of Children*, 6(1), 40-53.
- Sacker, A., Schoon, I. and Bartley, M. (2001). Sources of bias in special needs provision in mainstream primary schools: Evidence from two British cohorts. *European Journal of Special Educational Needs*, 16, 259-276.
- Schweinhart, L.J. and Weikart, D.P. (1993). Lasting differences; the High/Scope Pre-school curriculum comparison study through age 23. *Early Childhood Research Quarterly*, 12, 117-143.

- Slavin, R.E., Karwit, N.L., Dolan, L.J., Wasik, B.A. and Madden, N.A. (1993). Success for all: Longitudinal effects of a reconstructing program for inner city elementary schools. *American Educational Research Journal*, 30, 123-148.
- Stanovich, K.E. (1994). Annotation: Does Dyslexia Exist? *Journal of Child Psychology and Psychiatry*, 35(4), 579-595.
- Vardill, R. (1996). Imbalance in the numbers of boys and girls identified for referral to educational psychologists: some issues. *British Journal of Special Education*, 23, 123-129.
- Visle L. and Langfelt, G. (1996). Finance, policy-making and the organisation of special education. *Cambridge Journal of Education*, 26, 59-70.
- Wagner, M.M. (1995). Outcomes for youths with serious emotional disturbance in secondary-school and early adulthood. *Future of Children*, 5(2), 90-112.

5. WHAT EVIDENCE IS THERE THAT CHILDREN WITH SEN ARE ROUTINELY EXCLUDED FROM SCHOOL ACTIVITIES?

The national commitment to educational inclusion is a commitment to creating an appropriate and non-exclusive curriculum for every pupil. Increasingly, progress towards this objective is asking questions similar to the one above, particularly in relation to the different contexts of mainstream and special schools. We can approach this question through exploring two justifications for/definitions of exclusion: exclusion 'for the good of others' and exclusion 'for the pupil's own good'. Both factors may be relevant for certain exclusions.

Exclusion 'for the pupil's own good'. The mainstream school.

This category could include:

- Withdrawal from mainstream classes, such as modern foreign languages (MFL), for support for e.g. dyslexia or 'catch-up'. There is a delicate balance here, particularly if the withdrawal is frequent. There is often strong concern about narrowing curriculum within MFL circles (Salters, et al., 1998). The most recent OFSTED report on the National Numeracy Strategy has this to say about pupils with SEN and withdrawal (OFSTED, 2001): "Appropriately, most pupils remain in the class for the whole of the daily mathematics lesson. If they are withdrawn from the whole-class lesson, it is usually because of the identification of specific targets for mathematics in a pupil's individual action plan that cannot be delivered easily in the whole-class lesson or because of behavioural difficulties."
- Withdrawal from aspects of National Curriculum as inappropriate for pupils' SEN (e.g., for 'EBD', Humphreys, et al., 1993). This can lead to a loss of curriculum resources in terms of staff, equipment or space. A number of teachers failed to answer a question on this in Porter and Lacey (1999). Their study offers strong evidence that pupils with SEN miss National Curriculum and non National Curriculum subjects, though not necessarily the same subjects consistently.
- Release from mainstream curriculum at KS4 for work-related learning. Generally approved as good practice in mainstream and special schools: a developing issue for the recent Green Paper (DfES, 2002) on the 14-19 curriculum.
- Disapplication from assessments e.g. national key stage tests ('SATs'). While this could in some circumstances be seen as disadvantaging those disappplied, we cannot find any studies which have examined this as an equal opportunities issue. QCA statistics suggest (email communication) that 1% of pupils are disappplied from the KS tests in English at KS2 and KS3. However, these data do not concur with the data collected from other sources (Dockrell, et al., 2001; Knox, 2000)
- Placement in tiered examinations (e.g. GCSE) may lead to lowered expectations (Lambert and Lines, 2000). Lambert and Lines point out in relation to GCSE that "Although tiered papers overcame the practical difficulties of setting papers across the whole ability range, and as a result have become the norm, they carry certain disadvantages...A student who knows he or she cannot achieve what is

commonly accepted as a 'pass' (i.e., a 'C' grade) will often 'turn off.'" The complicated and 'dangerous' decisions for teachers and students involved in tiering and the inequities of the system for some groups are discussed in detail in Gillborn and Youdell (2000). Gillborn and Youdell also explain how setting decisions in schools are often seen by teachers as disadvantaging those with SEN.

Withdrawal 'for the pupil's own good'. Placement in the special school.

- Placement in special provision (school or PRU) can be placement in seriously under-resourced provision in curriculum terms. For example, adequate music provision is missing in many special schools according to a study of OFSTED reports (Green, 2001).
- 70% of special schools failed to enter students for any GCSEs in 1996 (Thomas 1996). Unfortunately this study has not been replicated, though the data would be relatively easy to gather. Polat and colleagues found that pupils in special schools had lower aspirations for the future than SEN pupils educated in mainstream schools (Polat, et al., 2001: see question 9).
- The absence rates in special schools are high. In 2000-1 DfES attendance data (DfES 2001) recorded a 9.1% authorised absence rate (the highest of any school category). Though this aspect of special school life does not seem to have been researched, authorised absences are typically for illness, hospital appointments or therapy. Special schools were also reported to have the highest number of unauthorised absences (truancy) in comparison to other school categories. In the past the Audit Commission has noted the connection between high truancy rates and poor attainment in examinations (e.g., Audit Commission, 1996). This might be an area where study could usefully be undertaken to see to what extent the rates of absence relate to institutional or individual differences.
- If mainstream curriculum opportunities are to be taken up by pupils with PMLD, who are normally in special provision, we should note Male's study (1997) of the views of headteachers of SLD schools. She recorded teachers' concern that the 'competitive educational climate' may be making it even more difficult to 'mainstream' students with SLD and PMLD.

Exclusion 'for the good of others'. Mainstream and special school.

- Exclusion from using equipment (e.g., science laboratory and design and technology) can lead to a seriously imbalanced curriculum.
- Exclusion from trips (confirmed by 63% of teachers in Porter and Lacey (1999)) seems a common experience for pupils with learning difficulties and challenging behaviour. It raises the question of whether such trips are part of the curriculum or not. If they are, is what is provided as an alternative of similar educational quality? Porter and Lacey also confirm that exclusion from birthday parties and social events outings was a part of life for the group they studied. Withdrawal from trips may be used as a part of a disciplinary system, particularly in special provision, where such a system is often based on the accumulation of points towards rewards for good behaviour.

- ‘Emotional disturbance’ was seen as making mainstream placement/re-integration inappropriate for some ‘EBD’ groups in Farrell and Tsakalidou (1999). Many commentators have suggested that once in special schools it is almost impossible for pupils to move back. This may be particularly the case in relation to pupils with EBD. Farrell and Tsakalidou found a less than 5% re-integration rate from EBD schools. One might contrast this with the positive effects recorded on the behaviour of young children with disabilities who share activities with ‘typically developing’ children in Levine and Antia (1997). Of course if students with learning difficulties and disabilities are more easily accepted in the mainstream than those whose behaviour is an acute concern, the latter are less likely to be able to enjoy the positive effects of social development with their peers. Children with behaviour problems seem to be rejected more often and their parents are aware of the drawbacks of inclusion for them (Guralnik, 1994).
- Romer and Haring’s (1994) work with deaf-blind students highlights the importance of quality - not just quantity - of interactions among disabled and non disabled groups.

Failure or inability to remove physical and other barriers to curriculum resources

Pupils with disabilities may miss out on areas of curriculum because of failure or inability to remove physical and other barriers to their taking part. The range of barriers to inclusion, such as the science laboratories on the third floor of a school without a lift, is documented in the examples available in the draft Disability Code of Practice (Schools) published by the Disability Rights Commission. Failure to alter the acoustic environments at schools (Shield, et al., 2002) will significantly impact on the ability of hearing-impaired children to access the curriculum.

CONCLUSIONS

This review suggests clearly that children with SEN are routinely excluded, though the evidence is patchy. But the range of dimensions involved means that many everyday decisions about inclusion in the curriculum are complex and place considerable demands on teachers’ moral and professional capacity.

REFERENCES

- Audit Commission (1996). *Misspent Youth: Young People and Crime*. Audit Commission.
- Disability Rights Commission (2001). *Draft Code of Practice (Schools)*. London: DRC.
- DfES (2001). *Statistical Bulletin: Pupil Absence and Truancy from Schools in England*. London: The Stationery Office.
- DfES (2002). *14-19: Extending Opportunities, Raising Standards*. London: The Stationery Office.
- Farrell, P. and Tsakalidou, K. (1999). Recent trends in the re-integration of pupils with emotional and behavioural difficulties in the United Kingdom. *School Psychology International*, 20(4), 323-337.
- Gillborn, D. and Youdell, D. (2000). *Rationing Education: Policy, Practice, Reform and Equity*. Open University Press.
- Green, H. (2001). *Special schools lacking in music provision*. Press Office: Institute of Education
- Guralnik, M.J. (1994). Mothers' perceptions of the benefits and drawbacks of early childhood mainstreaming. *Journal of Early Intervention*, 18, 168-183.
- Humphreys, K. and Stuart, E. (1993). Challenging times for teachers. *British Journal of Special Education*, 20(3), 97-99.
- Lambert, D. and Lines, D. (2000). *Understanding Assessment: Purposes, Perceptions, Practice*. Routledge: Falmer.
- Levine, L.M. and Antia, S.D. (1997). The effects of partner hearing status and on social and cognitive play. *Journal of Early Intervention*, 21, 21-23.
- Male, D.B. (2001). Inclusion opportunities for pupils with severe and profound and multiple learning difficulties. *The SLD Experience*.
- OFSTED (2001). *The National Numeracy Strategy: The second year. An evaluation by HMI*.
- Porter, J. and Lacey, P. (1999). What provision for pupils with challenging behaviour? *British Journal of Special Education*, 26(1), 23-28.
- Romer, L.T. and Haring, N.G. (1994). The social-participation of students with deaf-blindness in educational settings. *Education and Training in Mental Retardation and Developmental Disabilities*, 29(2), 134-144.
- Russell, P. (1997). Don't forget us! Messages from the Mental Health Foundation committee's report on services for children with learning disabilities and severe challenging behaviour. *British Journal of Special Education*, 24(2), 60-65.
- Salters, J., Neil, P. and Wright, M. (1998). Modern languages and special educational needs: A review of research. *Educational Research*, 40(3), 364-374.
- Thomas, G. (1996). *Exam Performance in Special Schools: CSIE Publication*. Bristol: University of West of England/CSIE Publication.

6. EXCLUSIONS, TRUANCY AND BULLYING AND YOUNG PEOPLE WITH SEN

Permanent Exclusions

The evidence on permanent exclusion suggests that pupils with statements of special educational needs are still far more likely to be excluded than pupils without statements (see question 1). In England pupils with statements make up approximately 18% of permanent exclusions, though they are only 3% of the school population (DfES, 2001a). This proportion has remained constant over the three years 1997/98 to 1999/2000.

Fixed Term Exclusions

The figures for fixed term exclusions are not collected nationally and to our knowledge the figures for the current situation are not being collated in any current research. The Audit Commission have noted in the past that not all authorities collate their figures.

Exclusion and categories of SEN

The most recent work on the subject suggests, as we might expect, that pupils with a statement for EBD are far more likely to be permanently excluded (Osler, et al., 2001). The study stresses:

- the role of early outside support from LEA specialist services;
- concern about slow delivery of some support (at its most straightforward in relation to furniture for disabled students).

Teachers interviewed were generally anxious to avoid exclusions for pupils with SEN, though it was noted that exclusion was sometimes seen by senior managers as a way of forcing the pupil's needs onto wider agency agendas (see also Blyth and Milner, 1994). There was however a feeling that systematic and holistic approaches to the task of sorting out what 'caused' any misbehaviour were not always in evidence (see question 2 tracer groups). A headteacher of an EBD school made this statement to a member of the research team: "I find it devastating that in a special school, an EBD special school, we get children coming to us because of behaviours they have demonstrated in mainstream school and nobody has tried to identify the causes of that behaviour".

There are three important dimensions to consider when addressing the causes of behaviour and particularly emotional/behavioural difficulties (still prevalent though 'social, emotional and behavioural development' is the favoured term in the most recent SEN Code of Practice, DfES, 2001).

- Meta-evaluations of work on effective behaviour systems are clear that it is the teacher's preparation for diversity in behaviour, not what she or he does after the behaviour that is critical in the quality of learning. So any search for cause which does not examine the environment in which the behaviour

takes place, particularly the classroom culture created by the school and the teacher, can be unproductive (see discussion of models in question 1).

- The perceptions of teachers about behaviour and its seriousness often vary greatly. This is stressed in the work of a number of authors. Bayley and Haddock (1999) note that in a mainstream school they visited, teachers claimed that a high proportion of the pupils 'were EBD'. We need to be careful about over-hasty categorisation of acting-out behaviour and instead concentrate carefully on observation moderated by professional discussion of antecedents and consequences to seek insights about appropriate action (see question 1 identification).
- The label EBD itself does not fit easily into models of disability and may indeed effectively limit discussion of causes (see also questions 2 and 3). The observation of Daniels, et al. (1999) that "differences between practices that lead to exclusion and those leading to a child being placed on stages 4 and 5 of the SEN Code of Practice for EBD were sometimes unclear" reflect this lack of clarity.

Bullying

Hill (1995) notes that there is very little ethnographic research on bullying in special schools and that there is a lack of research on bullying and SEN children, particularly those with social and emotional difficulties. There is sufficient evidence to suggest a relationship. For instance, Nabuzoka and Smith (1993) found a clear link between bullying and SEN, both in terms of children who bully and those who are bullied. Girls and boys with SEN were equally likely to be bullies. Boys are usually recorded as the principal offenders in other studies, bullying children from 'normal populations'.

Wolke and Stanford (1999) note methodological limitations in relation to bullying and SEN: questionnaire surveys (which are a popular method of anonymous data collection) are likely to be awkward for those with reading difficulties. There could well be under-representation of the number of children with SEN being bullied. In contrast, Farrell (2000) says: "in general, evidence about the behaviour of pupils in mainstream school towards children with SEN suggests that mainstream schools accept such pupils without difficulty and that incidents of bullying and victimisation are rare."

Nabuzoka and Smith link this to problems of rejection and unpopularity in schools for pupils with SEN. This is supported by Kwan (unpublished MSc thesis) who found that both boys and girls with SEN but without a statement were significantly more likely to experience bullying. More detail was offered by Martlew and Hodson (1991). This small-scale study sought to explore experiences in a special and mainstream school. It suggested that there was relatively little difference in the quality of classroom and playground social interaction in each setting. A rare study of bullying in an EBD school (Torrance, 2000) found significant levels of bullying in the school.

Attendance

There is extensive quantitative data on authorised and non-authorised absence, much of which has been collated in Audit Commission publications and in DfES regular surveys. It has been noted in the comments on question 5 that special schools have very high rates of authorised absence, presumably because of the many needs of their pupils. They also consistently have the highest rate (2.2% in 2000/01) of unauthorised absence (maintained primary schools 0.5%; secondary schools 1.1%) (DfES, 2001b) We have not been able to trace more detailed studies of attendance and students with special educational needs.

CONCLUSIONS

Data on many aspects of fixed term exclusions and attendance does not exist. The picture on bullying needs to be developed to include some findings about the possibility that pupils with SEN are more likely to bully. A number of developmental studies now indicate that the simplistic notion of bully/not bully is not tenable. More complex analyses are required that consider forms of bullying and the context of behavioural patterns are required (Sutton, 2001). The evidence of relationships in this area can therefore be considered at best patchy.

REFERENCES

- Bayley, J. and Haddock, L. (1999). *Training Teachers in Behaviour Management*. London: SENJIT.
- Blyth, E. and Milner, J. (1994). Exclusion from school and victim blaming. *Oxford Review of Education*, 20(3), 293-306.
- DfES (2001a). *Bulletin: Permanent exclusions from maintained schools in England*. (10/01).
- DfES (2001b). *Bulletin: Pupil absence and truancy from schools in England, 2000/2001*. (13/01).
- Kwan, L. (Unpublished MSc dissertation). *Children with SEN without statements*. London: Institute of Education, University of London.
- Martlew, M. and Hodson, J. (1991). Children with mild learning-difficulties in an integrated and in a special school: Comparisons of behaviour, teasing and teacher attitudes. *British Journal of Educational Psychology*, 61, 355-372.
- Nabuzoka, D. and Smith, P.K. (1993). Sociometric and social-behaviour of children with and without learning difficulties. *Journal of Child Psychology and Psychiatry and Applied Disciplines*, 34(8), 1435-1448.
- Osler, A., Waitling, R. and Bushr, H. (2001). *Reasons for exclusion from school*. DfES publication. London: The Stationery Office.
- Sutton, J., Smith, P.K. and Swettenham, J. (1999). Social cognition and bullying; Social inadequacy or skilled manipulation? *British Journal of Developmental Psychology*, 17, 435-450.
- Torrance, D.A. (2000). Qualitative studies into bullying within special schools. *British Journal of Special Education*, 27(1), 16-21.
- Wolke, D. and Stanford, K. (1999). Bullying in school children. In D. Messer and S. Millar (Eds.), *Exploring developmental psychology: From infancy to adolescence*. London: Arnold.

7. WHAT RESEARCH HAS BEEN DONE AROUND CHARACTERISTICS AND PRACTICES OF SCHOOLS THAT ARE BOTH INCLUSIVE AND EFFECTIVE IN TERMS OF PUPIL ATTAINMENT?

Until recently, research into school effectiveness and school improvement (SESI) has been carried out within a separate tradition from research into inclusive education. Indeed, while there has been a substantial amount of research focussed on features of schools which make them more effective (from Rutter's 1979 study to recent studies such as those of Sammons (1999), Sammons, et al. (1995)), there have been almost no research studies which have focussed on features of inclusive schools, and indeed the definition of an 'inclusive' school is highly complex. Although both research areas have major methodological problems, such as the issue of differential 'value-added' outcomes for measuring effectiveness for different groups of pupils, and the problems of defining 'effective' (White and Barber, 1997), these methodological and definitional problems are arguably greater in relation both to defining and evaluating inclusive education.

- There are considerable problems over the definition of 'effective' and 'inclusive' schools.

Recent government policy (the Programme for Action, the SEN Code of Practice, and the 'standards' agenda) creates the opportunity and indeed the imperative for schools to attempt to become more effective and more inclusive. Yet, as Lunt and Norwich (1999) point out, this proves difficult; using, albeit, conventional measures of effectiveness (proportion of pupils gaining grades A-C at GCSE) and inclusiveness (number of pupils in the school identified with SEN), and basing their analysis on government figures, they identified a very small proportion of secondary schools which succeeded in being both highly effective and highly inclusive. These authors pointed to potential value conflicts inherent in the pressures for higher standards and greater inclusiveness which might lead to polarisations between schools which were highly effective in terms of results at GCSE and those which were inclusive in terms of successfully meeting the needs of large numbers of pupils with SEN.

- There are very few studies of schools that are both inclusive and effective.
- Definitions and measures of both effectiveness and inclusiveness are complex and very difficult.
- Only a small number of schools appear to be able to be both 'effective' in terms of high attainments, and inclusive in terms of high numbers of pupils with SEN.

Studies of school effectiveness have identified a number of factors which contribute to school effectiveness (e.g., the synthesis of reviews by Scheerens and Bosker, 1997). These include professional leadership, parental involvement, effective instructional arrangements, high expectations and appropriate

monitoring. However, this field of research has also been criticised because of the general failure of school effectiveness and school improvement discourses for disadvantaged students (Slee, et al., 1998).

There have been a number of small-scale studies of inclusive provision for particular groups of pupils. The review by Hegarty (1993) suggested that although the evidence was balanced in terms of outcomes of mainstream provision as compared with special school provision, this in itself should encourage greater moves for 'mainstreaming'. More recent reviews (Farrell, 1997, 2000; Campbell, et al., 2000) present a similarly inconclusive picture which reflects the complexity of the task of evaluating inclusive provision. This is beset by difficulties of defining 'inclusive provision' and comparing different forms of 'inclusive provision', by the use of different outcome measures reflecting a focus on social or academic outcomes, and by clearly different outcomes for different groups of pupils. There is growing evidence, for example, that schools find it easier to include pupils with sensory difficulties and harder to include those with EBD and challenging behaviour (Lunt and Evans, 2002). Research evidence further points to the fact that the views of parents concerning inclusion of their pupils with SEN vary widely (Farrell, 2000; Jenkinson, 1997), and that teachers' views also vary widely. Nevertheless, a review of practice in the USA (Giangreco, 1997) identified common features of schools in the USA where inclusive education was reported to be thriving. These include collaborative teamwork, involving families, effective use of support staff, evaluating the effectiveness of education, clear role relationships among professionals, collaborative teamwork.

- Studies of features of effective schools do not necessarily include pupils with SEN.
- Small-scale studies of inclusive practice have not identified characteristics of 'inclusive schools'.

A number of studies in the 1990s assumed that improving schools as a whole would have benefits for pupils with SEN: hence the notion of 'effective schools for all' (Ainscow, 1991) and that adopting practices which were associated with school effectiveness and higher attainment for the majority of school pupils would also lead to improved outcomes for the minority of pupils with SEN (e.g., Ainscow, 1995). However, there is very little evidence on the question of whether optimising outcomes for the majority can be compatible with optimising for the minority. The analysis carried out by Lunt and Norwich (1999) suggested that only a very few mainstream secondary schools were able to combine high academic performance and high proportions of pupils with SEN. These authors are following up their survey with case studies of schools which succeeded in being both 'inclusive' and 'effective' in order to try to identify any common features which enable them to combine inclusive with effective measures.

- There has been little evidence that improving schools for the majority of pupils also improves schools for the small minority with SEN.

The Index for Inclusion (CSIE, 2000) which aims to 'foster high achievement for all pupils', draws on evidence from studies of school improvement and the literature on inclusion, and provides one attempt to use the evidence from school effectiveness studies to promote 'whole school' approaches to 'inclusion'. Evidence from a number of studies (e.g., Ainscow, et al., 1999) have pointed to the effectiveness of schools working together and using the expertise of special schools to support pupils with SEN in mainstream schools.

CONCLUSIONS

There has been very little research which has looked for features of schools which are both 'effective' and 'inclusive'. This is in part due to the difficulty of definition of both 'effectiveness' and 'inclusiveness' and in part due to the separate traditions of research and evaluation in the two areas. The Lunt and Norwich (1999) study which used government figures to identify schools which were both high attaining and included high numbers of pupils with SEN identified only about 40 secondary schools which met both criteria. Further work is being carried out to try to identify features shared by these schools. The Index for Inclusion (CSIE, 2000) attempts to bring the traditions of 'school effectiveness and school improvement' research to enable schools to become more 'inclusive'. The potential tensions between the government policies for raising standards and greater inclusion of pupils with SEN are further emphasised by the commitment to parental choice of school. There is an urgent need for further research which looks in detail at features of those schools which succeed in being both inclusive and effective, and which acknowledge the complexity of the definitions and measures of both concepts.

REFERENCES

- Ainscow, M. (1991). *Effective schools for all*. London: Fulton.
- Ainscow, M. (1995). Special needs through school improvement: School improvement through special needs. In C. Clark, A. Dyson and A. Millward (Eds.) *Towards inclusive schools*. London: Fulton.
- Ainscow, M., Farrell, P., Tweddle, D. and Malki, G. (1999). *Effective practice in inclusion and in special and mainstream schools working together*. Research Brief (91). London: DfEE Publication.
- Campbell, C., Gillborn, D., Lunt, I., Robertson, P., Sammons, P., Vincent, C., Warren, S. and Whitty, G. (2000). *A review of developments in inclusive schooling*. Review carried out for the Scottish Executive Education Department (SEED).
- CSIE (Centre for Studies on Inclusive Education) (2000). *Index for Inclusion: Developing learning and participation in schools*. Bristol: CSIE.
- Farrell, P. (1997). The integration of children with severe learning difficulties: A review of the recent literature. *Journal of applied research in intellectual abilities*, 10(1), 1-14.
- Farrell, P. (2000). The impact of research on developments in inclusive education. *International Journal for Inclusive Education*, 4(2), 153-162.
- Giangreco, M.F. (1997). Key lessons learned about inclusive education: Summary of the 1996 Schonell Memorial Lecture. *International Journal of Disability, Development and Education*, 44(3), 193-206.
- Hegarty, S. (1993). Reviewing the literature on integration. *European Journal of Special Needs Education*, 8(3), 194-200.
- Hocutt, A.M. (1996). Effectiveness of special education: Is placement the critical factor? *Future of Children*, 6(1), 77-102.
- Law, J., Lindsay, G., Peacey, N., Gascoigne, M., Soloff, N., Radford, J., Band, S. and Fitzgerald, L. (2000). *Provision for Children with Speech and Language Needs in England and Wales: Facilitating communication between Education and Health Services*. RR239: DfES Publications.
- Lunt, I. and Norwich, B. (1999). *Can effective schools be inclusive schools?* London: Institute of Education.
- Lunt I. and Evans J. (2002). Inclusive education: are there limits? *European Journal of Special Needs Education*, 17(1), 1-14.
- Manset, G. and Semmel, M.I. (1997). Are inclusive programs for students with mild disabilities effective? A comparative review of model programs. *Journal of Special Education*, 31(2), 155-180.
- Miller, D. and Miller, C. (Unpublished). *Educational provision for children with language and communication difficulties*. Unpublished.
- RNID (2001). *Effective inclusion of deaf pupils into mainstream schools*. London: RNID Publication.
- Rouse, M. and Florian, L. (1996). Effective inclusive schools: A study in two countries. *Cambridge Journal of Education*, 1(4), 323-336.
- Rutter, M., Maughan, B., Mortimore, P. and Ouston, J. (1979). *Fifteen Thousand Hours: Secondary Schools and Their Effects on Children*. London: Open Books.
- Sammons, P. (1999). *School Effectiveness: Coming of Age in the 21st Century*. Lisse, Swets and Zeitlinger.

- Sammons, P., Hillman, J. and Mortimore, P. (1995). *Key Characteristics of Effective Schools: A review of school effectiveness research*. London: OFSTED.
- Scheerens, J. and Bosker, R.. (1997). *The Foundations of educational effectiveness*. Oxford: Pergamon.
- Slee, R., Weiner, G. and Tomlinson, S. (Eds.) (1998). *School effectiveness for whom? Challenges to the school effectiveness and school improvement movements*. London: Falmer Press.
- Wagner, M.M. (1995). Outcomes for youths with serious emotional disturbance in secondary-school and early adulthood. *Future of Children*, 5(2), 90-112.
- White J. and Barber M. (Eds.) (1997). *Perspectives on school effectiveness and school improvement*. Institute of Education: Bedford Way Papers.

**8. WHAT RESEARCH HAS BEEN DONE TO DEVELOP APPROPRIATE OUTCOME MEASURES FOR CHILDREN WITH SEN?
WHAT MEASURES EMERGE FROM THIS WORK AND HAVE ANY BEEN TRIALLED SUCCESSFULLY?**

It is widely acknowledged that it is difficult to evaluate the outcomes of inclusive education (Hegarty, 1993; Jenkinson, 1997; Farrell, 2000) and that the studies which have attempted to evaluate outcomes have been largely inconclusive. Indeed there has historically been little attempt to evaluate outcomes of any form of provision for pupils with SEN. There are a number of major methodological difficulties which make it difficult to evaluate provision. First, it is virtually impossible to use matched control group designs (or RCT) to compare different forms of provision; second, it is difficult to compare studies with different groups of pupils, since pupils with SEN show enormous variation, and what works for one pupil or one group may not work for other pupils or groups; third, provision for pupils with SEN varies considerably making comparison difficult. However, the absence of strong evidence for the superior performance of pupils in segregated settings has been used to provide justification in itself for the rights of pupils to be educated in mainstream schools (Hegarty, 1993).

- There have been few attempts to evaluate outcomes of provision for pupils with SEN;
- There are considerable methodological difficulties in comparing outcomes of different forms of provision for pupils with SEN.

Nevertheless, there is now a clear need to evaluate outcomes. Demands for additional resources for individual pupils are escalating, resources are finite, and there is a need to ensure equitable distribution of available resources. Crowther, et al. (1998) suggest that the field of SEN and public expenditure made for it should be subjected to closer scrutiny and that three questions should be raised in relation to efficient management of expenditure, equitable deployment of resources and effective meeting of needs. They point out that:

- The assessment of educational outcomes is fraught with technical problems.

It is possible to consider four forms of outcome evaluation. These are academic outcomes, affective outcomes, social outcomes, life-chance outcomes. Very little work on outcome measures has been carried out in the UK, and most of the studies which have attempted to look at outcomes have been very small-scale studies which consider outcomes for particular groups of pupils with SEN (e.g., hearing impaired, pupils with autism, SLB, MLD, language impairment).

A number of studies have looked at whether certain groups of pupils do better academically in one setting than another. These studies use educational attainment measures, and have tended to produce inconclusive results, though particular 'inclusive' settings with appropriate support have been associated with positive outcomes. These studies have been carried out mainly in the USA (e.g., Slavin and Madden, 1986; Lipsky and Gartner, 1997), although the Crowther, et al. (1998) study provided valuable insights into costs and outcomes for pupils with MLD. Studies which focus on affective outcomes have tended to use measures of self-esteem and self-concept, and have again produced inconclusive results in terms of comparisons between placements (Lindsay, et al., in press). There are relatively few studies which focus on life-chance outcomes, mainly because of the costs of carrying out longitudinal studies.

- There are four types of outcomes which are relevant to evaluation of provision: academic, affective, social, life-chance;
- Studies have used outcome measures such as educational attainment, measures of self-esteem, patterns of friendship or, infrequently, post-school outcomes of different provision;
- There is a very little evidence apart from small-scale studies which evaluate outcomes.

The Crowther, et al. (1998) study is extremely valuable in providing a framework for measuring outcomes. They point out that outcome indicators are available in terms of SATs results, (see Knox and Conti-Ramsden, *Afacic Abstract*) screening test scores, IEP outcomes and that "there is an urgent need for schools and LEAs to begin to monitor more closely both how they deploy their resources and the outcomes which that deployment generates" (p. 7). The respondents in their study appeared to emphasise process as well as 'end-point' outcomes, although this tended to refer to individuals rather than to systematic evaluation of outcomes for groups of pupils.

- There is an urgent need for systematic research which relates pupils' outcomes to costs and nature of provision;
- Educational attainment data are already available and should be used to evaluate outcomes and monitor pupil progress.

CONCLUSIONS

There is little research, particularly in the UK, which has related provision for pupils with SEN to outcomes. The studies which have been carried out have tended to be small-scale and focussed on particular groups of SEN; these studies have used educational outcomes such as test results, affective outcomes such as measures of self-esteem, social outcomes such as friendship patterns and sociometric measures, or, occasionally life-chance outcomes. There are considerable methodological problems in evaluating outcomes for pupils with SEN. Nevertheless, there is a clear need, as pointed out by the Crowther, et al. (1998) study, both for systematic monitoring by schools and LEAs of pupil outcomes,

using measures that are already available, and for a 'properly constituted outcomes study' in terms of research evidence.

REFERENCES

- Crowther, D., Dyson, A. and Millward, A. (1998). DfEE RR (89) *Costs and outcomes for pupils with moderate learning difficulties in special and mainstream schools*. Newcastle: Newcastle University.
- Farrell, P. (1997). The integration of children with severe learning difficulties: A review of the recent literature. *Journal of Applied Research in Intellectual Abilities*, 10(1), 1-14.
- Farrell, P., Critchley, C. and Mills, C. (1999). The educational attainments of pupils with emotional and behavioural difficulties. *British Journal of Special Education*, 26(1), 50-53.
- Kent, T. (2001). *School target-setting in special schools: Review and recommendations*. London: University of London, Institute of Education.
- Knox, E. and Conti-Ramsden, G. (Unpublished). *Educational placements and national curriculum Key Stage 2 test outcomes of children with a history of specific language impairment*.
- Lindsay, G., Dockrell, J.E., Letchford, R. and Mackie, C. (in press). Self-esteem of Children with Specific Speech and Language Difficulties. *Child Language Teaching and Therapy*.
- Miller, D. and Miller, C. (Unpublished). *Educational provision for children with language and communication difficulties*.
- QCA (2001). *Issues raised by teachers regarding national curriculum assessments below level 3*. London: QCA Publication.
- Topping, K. (1983). *Educational systems for disruptive adolescents*. New York: St Martins Press.
- Wylie, E.C., Morrison, H.G. and Healy, J. (1995). The progression of pupils with special educational needs: A comparison of standards. *Oxford Review of Education*, 21(3), 283-297.

9. WHAT EVIDENCE IS THERE ON DESTINATIONS - IN TERMS OF EDUCATION, EMPLOYMENT AND TRAINING - FOR YOUNG PEOPLE WITH SPECIAL EDUCATIONAL NEEDS ON LEAVING SCHOOL?

There has been little longitudinal study of this area of equal opportunities and unequivocal answers to many of the questions relating to destinations for young people with special educational needs are hard to find (but see Thomson and Ward, 1994 for Scottish data).

A significant exception to this is the work of Rutter and his colleagues (Mawhood, et al., 2000; Howlin, et al., 2000). These researchers follow-up a cohort of young adults who had been diagnosed as autistic or having receptive language problems in childhood. Both groups showed continued problems with behaviour patterns, social relationships and jobs. Many still lived with their parents; few had close friends or permanent jobs. Unlike early points of study where the two groups were clearly differentiated, at this point there was much greater overlap between the groups. The authors conclude that their data indicate the “very persistent problems experienced by individuals with developmental disorders, and their need for much greater help and support than is presently available”.

There are many reasons for the gaps in terms of outcomes. Some of the more significant are listed below:

- Longitudinal studies must be prospective and thus depend on the identification of a population early; such studies are expensive and securing funding is complex.
- In education terms the studies tend to be sector-bound, seeking to answer questions important to the sector’s functioning, such as ‘How many students with disabilities are there in universities/colleges?’
- Different sectors use a wide range of terminology: while ‘disability’ is universal, FE Colleges (for example) tend to avoid the term ‘special educational needs’ and make broad use of ‘learning difficulties or disabilities’.
- The lack of interest in the area has led to the harnessing of data originally collected for other reasons, particularly financial, to other purposes. Because those with disabilities can receive grants in FE/IHE, the information on disability numbers is available and can be used.
- The FE scene, which has high significance in supporting young people with SEN/disability, has recently been through even more structural changes than other areas of education. These have not necessarily had positive effects for all. For example, Sutcliffe (1996) found that the Further and Higher Education Act (1992) had made access better for those with mild learning difficulties, but worsened the situation for those with profound and multiple learning difficulties.

One obvious area of interest from an equal opportunities point of view is the proportion of the population with learning difficulties or disabilities currently enrolled in further or higher education. However, the difficulty of working with current data is shown by the authoritative study *Mapping Provision*

(FEFC, 1997) which sought to compare the numbers of young people with learning difficulties/disabilities in Further Education with the figures for disability in the population as a whole.

The authors concluded:

- there is no one source or combination of sources which can provide a robust estimate of the population with learning difficulties and/or disabilities;
- combining information from a number of different administrative or populations survey sources to create an estimate of the population with learning difficulties would require assumptions to be made about the overlap between sources and potentially over-count or under-count particular groups;
- and the information on the number of students participating in Further Education and the population estimates have been collected on a different definitional basis, making any comparison between them subject to error.

But *Mapping Provision* does include some useful information, including colleges' estimates of unmet needs for current students and those unable to use their services. 268 of the 274 colleges to which questionnaires were sent responded to a question on whether they had systems in place to record instances where potential students with a learning difficulty and/or disability apply to the institution but could not be enrolled for any reason. Nearly 64% claimed to have such systems.

Those which had recorded 'unmet need' (127 colleges) were then asked the nature of the unmet needs. Top of the list was 'disability affecting mobility' (31.5%), closely followed by 'non-educational needs' (26.8%). The latter covered a multitude of factors, but common examples include students requiring support such as transport, 24-hour or residential care, personal care needs, as well as some instances where it was judged that the potential students had a demand for day-care services rather than education. Further down the list came: profound and complex learning difficulties (18.1%); visual impairment (17.3%); and severe learning difficulties (12.6%). Not surprisingly, 52.1% of the colleges gave 'resources' as the reason for the unmet need.

Data from the longitudinal National Youth Cohort Study in its present form does not provide clearer evidence. The figures below present qualification levels for their substantial sample of 21 year olds. At first reading it would appear there is some evidence that those with disabilities or health problems are doing as well in terms of level 3 qualifications as the rest of the population. But a conversation with the team revealed that their sample only included students who were in mainstream school at Y11. The whole special school population was excluded, so the results should be treated with caution.

Table 9.1 21 year olds in 2000: Highest qualification level achieved by characteristics (DfES, 2001)

	Weighted sample	Level 4/5 % of the group	Level 3 % of the group	Level 2 % of the group	Below level 2 % of the group
ALL	5796	18	35	22	25
Has a disability or health problem	259	9	36	28	27
Does not have a disability or health problem	5406	19	35	22	24
Note			Equivalent to passing two A levels		

The single most likely destination for many disabled people appears to be poverty. Burchardt (2000) shows how difficult getting and keeping a job can be for this group and Shropshire, Warton and Walker (1999) note the double jeopardy: “Unemployment claimants with disabilities are in double jeopardy. Not only do they have a disability or health problem that may affect their ability to work: disproportionate numbers also have limited qualifications and work experience which create further barriers to securing work quickly.” This result is similar to those found internationally (e.g., Banfalvy, 1996, a Hungarian study). Banfalvy notes the impact of subjects’ social origins and family environment on educational and employment opportunities and concludes “those who are capable of gaining some employment mostly come from an advantageous family background where their parents and relatives are able to help them find paid work”.

Some small studies of school leavers give us insight into the experience of certain groups. For example, May and Hughes (1995) concluded that in a study of 63 people considered to have MLD in Scotland, 2 years after full time education, only 3 of the 63 were found to be in open employment.

In reading all this material we should, however, note the caution about the term ‘students with disabilities’ quoted by Wagner (1995) in relation to a large longitudinal study. There is “no single story to tell about outcomes for students with disabilities; young people with different kinds of disabilities differed from one another more than they did from the population of youths, and the outcomes they were able to achieve reflected those sizeable differences”.

A substantial longitudinal study, outlined in Polat et al. (2001), was commissioned by DfES to follow the progress of 16 year olds with SEN as they move into the world beyond school and, it might be hoped,

provide reliable answers to some of the questions above. But things are at an early stage: Tara Cooke, the DfES officer responsible, tells us that the post-16 destination study stage is likely to start about July 2002 and be published in September 2003. Unfortunately, there have been methodological concerns about the sampling frame for this study.

Florian, et al. (2000) are looking in detail at the options available to a substantial sample of young people with profound and complex learning difficulties after the age of 16. So far their evidence confirms:

- “the widely held view that pupils with profound and complex learning difficulties have few opportunities to participate in community life as adults despite the overlapping legal responsibilities of multiple agencies”; and
- pupils with severe and profound learning difficulties were under-represented in further education. 39% of the 505 pupils in the study aged 19 or over remained in school.

How do destinations compare for young people who have been educated in mainstream and special schools?

Few studies have tackled this question directly. But it is probably fair to say that the comments in Thomas and Loxley (2001) that even with the extra resources allocated to special schools “evidence [has] emerged about the surprising lack of success of the segregated system” and “children with similar difficulties educated in mainstream or special schools left schools with similar results” are generally supported by the literature. The Audit Commission/HMI (1993) *Getting in on the Act* commented on the lack of real signs of enhanced progress as a result of special provision.

However,

- Mainstream education, particularly if current policy plans for the secondary school go ahead, is becoming a highly differentiated sector and straightforward comparisons are going to become increasingly hard. There have always, by definition, been no pupils with learning difficulties in grammar schools; many feel that the present plans could lead to further stratification in terms of admissions.
- Zera and Jupp (2000) remind us that the support and outreach systems of FE and other institutions may well be as critical to success for those at risk as the qualifications acquired and their school experience. If we are to achieve comprehensive answers to the sort of challenges implied by the question above we need to look at the nexus of provision which supports transition and ensures inclusion in the workplace, college or university.

REFERENCES

- Anderson, L.W. and Pellicer, L.O (1995). Synthesis of research on compensatory and remedial education. *Educational Leadership*, 48(1), 10-16.
- Banfaly, C. (1996). The paradox of the quality of life of adults with learning difficulties: Disability of model programs. *Journal of Special Education*, 31(2), 155-180.
- Burchardt, T. (2000). *Enduring economic exclusion: Disabled people, income and work*. York: York Publishing Services.
- DfES (2001). *Youth Cohort Study: The Activities and Experiences of 21 Year Olds: England and Wales*.
- Florian, L., Dee, L., Byers, R. and Maudslay, L. (2000). What happens after the age of 14? Mapping transitions for pupils with profound and complex learning difficulties. *British Journal of Special Education*, 27(3), 124-128.
- Howlin, P., Mawhood, L. and Rutter, M. (2000). Autism and developmental receptive language disorder- a comparative follow-up in early adult life II: Social, behavioural and psychiatric outcomes. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, 41, 561-578.
- May, D. and Hughes, D. (1995). The prospects of leaving school for the mentally retarded. *British Journal of Special Education*, 12(4), 151-159.
- Polat, F., Kalambouka, A., Boyle, W.F. and Nelson, N. (2001). *DfES RR 315 Post-16 transition of pupils with special educational needs*. Manchester: School of Education, University of Manchester.
- Sutcliffe, J. and Jacobsen, Y. (1998). NIACE publication: *All things being equal? A practical guide to widening participation for adults with learning difficulties in continuing education*. Bristol University: Norah Fry Research Centre.
- Further Education Funding Council (1997). *Mapping Provision: The Provision and Participation in Further Education by Students with Learning Difficulties and/or Disabilities*. Coventry: FEFC.
- Thomas, G. and Loxley, A. (2001). *Deconstructing special education and constructing inclusion*. Buckingham: Open University Press.
- Thomson, G. and Ward, K. (1994). *Patterns and pathways: Individuals with disabilities in transition to adulthood*. Edinburgh Leverhulme Trust/Scottish Office Education Department.
- Wagner, M.M. (1995). Outcomes for youths with serious emotional disturbance in secondary-school and early adulthood. *Future of Children*, 5(2), 90-112.
- Zera, A and Jupp, T. (2000). Widening participation. In A. Smithers and P. Robinson (Eds.) *Further Education Re-Formed*. Falmer Press.

CONCLUSIONS

The current review highlights a number of gaps in the current knowledge about and provision for children with special educational needs. The lack of data about the needs and progress for children who do not have statements is particularly disconcerting. We have no way of establishing whether these children's needs are being met, if they are met, how they are being met or what long-term outcomes can be expected. It might also be argued that the situation is compounded for a substantial minority by the lack of nationally collated data on fixed term exclusions.

There is a clear tension between research carried out within a medical model where children are categorised with particular types of difficulties and the diverse emotional, behavioural and educational needs of children within schools and the further education system. Evidence about particular patterns of needs is sparse and changes over time are rarely documented.

Categorisation can be problematic when criteria are clear (e.g., sensory impairments) but for those where the definitional criteria are vague and transient (e.g., ASD, EBD and MLD) there are serious problems with the process. These manifest themselves in unbalanced provision and over (and under) representation of the particular subgroups within the population. Moreover, few of these categories map directly to educational needs. Of particular concern are issues of associated problems or co-morbidity. Significant numbers of children have combinations of problems. The odds of finding appropriate provision will be harder if young people have more than one label to contend with. Some individuals will be faced with multiple discrimination as a result of gender, ethnicity or socio-economic background.

There is a clear indication that children with special educational needs may be disadvantaged in terms of their access to the wider curriculum, conventional assessment procedures and entry into further education. The evidence suggests that appropriate interventions can reduce the barriers to learning for children and young people with SEN. Problems found in schools and colleges can be minimised.

Moving towards an inclusive system requires a comprehensive, systematic and strategic research and development approach that incorporates national agency findings from all over the United Kingdom with more local projects and both focused and comprehensive longitudinal research studies that examine the major questions.

Appendix A: Research questions identified for the literature review

1. Incidence/prevalence of special educational needs

What data is available on the number/percentage of children identified as having certain types of special educational needs?

2. Impact of early identification on pupil outcomes

What evidence is there that early identification of a child's special educational needs, leading to appropriate intervention, results in improved outcomes, academic or otherwise?

3. Factors influencing likelihood of identification of SEN

What evidence is available on the impact of:

- gender
- ethnicity
- parental income/social class
- troubled family circumstances
- other significant factors

on the likelihood of a child being identified as having a certain type of SEN? Which groups are subject to under or over-identification?

4. [Research question four omitted from the review.]

5. Full participation in life of school

What evidence is there that children with certain types of SEN are being routinely excluded from curricular activities such as PE, science or technology?

What evidence is there that children with certain types of SEN are unable to participate fully in extra-curricular activities such as sports, after-school clubs and school trips?

6. Exclusions, truancy and bullying

What evidence – both qualitative and quantitative – is available on:

- permanent exclusions
- fixed term exclusions
- attendance
- bullying, of young people with SEN?

7. School effectiveness and inclusion

What research exists around the characteristics and practices of schools that are both highly inclusive and effective in terms of pupil attainment?

8. Outcomes measures for children with SEN

What research has been done to develop appropriate outcome measures – academic, social or other - for children with SEN? What measures emerge from such work and have any been trialled successfully at a local level?

9. Post-16 destinations

What evidence is there on 'destinations' - in terms of education, employment and training - for young people with special needs on leaving school? How do 'destinations' compare for young people who have been educated in special schools and those who have been through mainstream schools?