ECONOMIC AND SOCIAL RESEARCH COUNCIL
END OF AWARD REPORT

For awards ending on or after 1 November 2009

This End of Award Report should be completed and submitted using the grant reference as the email subject, to reportsofficer@esrc.ac.uk on or before the due date.

The final instalment of the grant will not be paid until an End of Award Report is completed in full and accepted by ESRC.

Grant holders whose End of Award Report is overdue or incomplete will not be eligible for further ESRC funding until the Report is accepted. ESRC reserves the right to recover a sum of the expenditure incurred on the grant if the End of Award Report is overdue. (Please see Section 5 of the ESRC Research Funding Guide for details.)

Please refer to the Guidance notes when completing this End of Award Report.

<table>
<thead>
<tr>
<th>Grant Reference</th>
<th>RES 061 25 0054</th>
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<tbody>
<tr>
<td>Grant Title</td>
<td>Inclusion of pupils with autistic spectrum disorders in mainstream secondary schools - challenges and opportunities</td>
</tr>
<tr>
<td>Grant Start Date</td>
<td>29/02/2008</td>
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<tr>
<td>Grant End Date</td>
<td>28/02/2011</td>
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<tr>
<td>Total Amount Expended:</td>
<td>£294,840.35</td>
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<tr>
<td>Grant holding Institution</td>
<td>University of Manchester</td>
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<tr>
<td>Grant Holder</td>
<td>Professor Neil Humphrey</td>
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<tr>
<th>Grant Holder's Contact Details</th>
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<tr>
<th>Co-Investigators (as per project application)</th>
<th>Institution</th>
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To cite this output:
ESRC End of Award Report, RES-061-25-0054. Swindon: ESRC
1. NON-TECHNICAL SUMMARY

Please provide below a project summary written in non-technical language. The summary may be used by ESRC to publicise your work and should explain the aims and findings of the project. [Max 250 words]

The aim of this study was to examine the experiences of pupils with autistic spectrum disorders (ASD) included in mainstream secondary schools. We compared 40 pupils with ASD, 40 with dyslexia and 40 with no identified special educational needs from 12 schools in relation to their experiences of bullying, popularity and rejection, engagement in lessons, interaction with other children at break and lunchtime, and other indicators of ‘inclusion’ using questionnaires, interview and observations. Although the data indicated that, overall, pupils with ASD fared significantly less well than other pupils on many of these indicators, there was evidence that in some schools this was not the case. Subsequently, we looked in more detail at four ‘good practice’ case study schools, interviewing pupils, staff and parents, and observing different aspects of school life, in an attempt to understand more about how these schools helped their pupils feel ‘included’. Each school had a strong inclusive ethos where diversity was valued. The special needs coordinators, who had high levels of ASD expertise, acted as a ‘hub’ through which key principles and practices were promoted. Links to specialist schools were evident, allowing sharing of knowledge, training, and dual placement arrangements. Effective communication between staff, pupils and parents was also crucial. This was supported by opportunities for training and staff development to promote skill acquisition and confidence among those working ‘at the chalkface’. The schools also worked with peer groups to develop awareness, understanding and tolerance towards pupils with ASD.

2. PROJECT OVERVIEW

a) Objectives

Please state the aims and objectives of your project as outlined in your proposal to the ESRC. [Max 200 words]

The aim of the project was to examine the effectiveness of (and subsequently inform practice in) inclusive education for pupils with autistic spectrum disorders (ASDs) in mainstream secondary schools.

There were four objectives: (1) to generate knowledge and understanding in relation to the presence, participation, acceptance and achievement (inclusion) of pupils with ASDs, and pupils with other (dyslexia) or no special educational needs (SEN); (2) to identify key systemic factors that facilitate or constrain successful inclusion of pupils with ASDs; (3) to explore, document and share good practice in the inclusion of pupils with ASDs; and (4) to inform educational theory and debate relating to the 'special' nature of teaching strategies and approaches for pupils with SEN (specifically, pupils with ASDs).
b) Project Changes

Please describe any changes made to the original aims and objectives, and confirm that these were agreed with the ESRC. Please also detail any changes to the grant holder’s institutional affiliation, project staffing or funding. [Max 200 words]

There were no changes to the aims and objective outlined above. Minor methodological changes included: (1) the measure of pupil attitudes toward school cited in the proposal was substituted for one with superior psychometric properties; (2) difficulties in establishing standardised estimates of pupil attendance and attainment (for example schools and teachers using different methods to quantify their estimates of pupil progress) meant that this indicator could not be included in the final research design; (3) most schools objected to the use of peer nominations of bullying and victimisation, and as a result this indicator was not included in the final research design; (4) a greater number of participants (120 rather than 90) were included in the first fieldwork phase.

In terms of staffing, the Research Associate named in the proposal left the University to train as an educational psychologist, causing a delay to the start of the project. The RA subsequently appointed then left after 6 months to live in another part of the country. A third RA (Wendy Symes) was appointed and fulfilled this role until the completion of the project.

All changes were reported to ESRC before the project began or at the interim reporting stage.
c) Methodology

Please describe the methodology that you employed in the project. Please also note any ethical issues that arose during the course of the work, the effects of this and any action taken. [Max. 500 words]

| Profiles of Inclusion | - this phase comprised a causal comparative investigation of inclusion profiles of 40 pupils with ASDs, 40 pupils with dyslexia, and 40 pupils with no identified SEN drawn from 12 secondary schools in the north-west of England. Triads of participants were matched in a 'case control' framework on age, sex, school and (for pupils with ASD and dyslexia) stage of SEN provision. 'Profiles of inclusion' were developed for each participant, using the following methods/measures:
| (1) Self-report questionnaires: self-perceptions, perceptions of social support, experiences of bullying and victimisation, and attitudes towards school
| (2) Peer-report sociometric questionnaire: social inclusion
| (3) Structured observations: pupil-peer interaction in social settings, classroom learning environment and pupil participation and engagement in lessons
| (4) Parent-report questionnaires: attitudes towards inclusive education

Additionally, school level data was collected using the following methods/measures:

| (1) Special Educational Needs Co-ordinator (SENCO) questionnaire: audit of school policy and practice relating to ASD
| (2) Teacher questionnaire: attitudes towards and extent of inclusion within school

Good Practice Case Studies - the data generated using the methods outlined above helped to answer key research questions, but also facilitated the selection of 4 exemplar case study schools whose good practice could then be explored and documented. The selection process began with the production of detailed summaries of the aggregated data from the Profiles of Inclusion Phase for each participating school. The project Principal Investigator (Humphrey) and RA (Symes) reviewed each of these independently and produced a short-list of 6 schools based upon key indicators in the summary documents (for example, a school with lower than average reported rates of bullying among pupils with ASD). Comparison of the two short-lists revealed that the top four schools in each were the same. These schools were contacted and agreed to participate in the Good Practice Case Study Phase.

The project RA spent approximately two months in each of the four case study schools. This facilitated a 'quasi-ethnographic' approach, wherein she was able to immerse herself in the life of the school and become 'part of the furniture'. In addition to the various informal opportunities for data collection that this approach presented, formal data generation in each school comprised interviews with and diaries of pupils with ASD, interviews with class teachers, support staff, SENCo and senior management, participant observations in lessons and other settings (e.g. lunchtime, staff briefings), document analysis (e.g. school policies) and interviews with parents of pupils with ASD.

To cite this output:
d) Project Findings

Please summarise the findings of the project, referring where appropriate to outputs recorded on the ESRC website. Any future research plans should also be identified. [Max 500 words]

[NB: These are key findings to date. Analysis and writing up are ongoing due to the size and richness of the dataset; please also see the Outputs section of the ESRC project website]

Profiles of Inclusion - Peer group factors emerged as the most pivotal with respect to the overall sense of inclusion experienced by pupils with ASD. Our analysis demonstrated that they experienced bullying three times more frequently, and reported receiving significantly less social support, than those with other or no SEN. Furthermore, sociometric data revealed that they were at a greatly increased risk of rejection, and significantly less popular than pupils in the other two groups. Our observations of peer interaction patterns indicated engagement in fewer instances of co-operative interaction and rough/vigorous play, more instances of reactive aggression, and more instances of verbal aggression by peers than in either comparison group. However, those with ASD were also subject to more instances of social initiation by peers. Interview data revealed issues relating to relationship histories and trust in other people as key factors in determining how pupils' responses to the challenges posed by the mainstream peer group environment.

Observational data work revealed that both pupils with ASD and dyslexia appeared to be significantly less 'included' in lessons than those without SEN. Pupils with ASD were less likely to work independently, listen to their classmates, and get along with their classmates than either comparison group. This effect was amplified when such pupils were supported by a teaching assistant.

Questionnaire data from adult staff suggested that senior managers and teachers alike perceived their schools as highly inclusive. However, senior managers were significantly more likely than subject teachers to feel they had the skills required to teach a child with ASD. As above, peer group factors emerged as a pivotal factor in staff perceptions of the benefits and challenges of mainstream education.

Good Practice Case Studies - Key characteristics of effective inclusion for pupils with ASD included a strong inclusive ethos where diversity was valued and respect for all pupils and staff was promoted. The SENCo, with high levels of expertise and passion in relation to ASD, acted as a 'hub' through which key principles and practices were promoted. Links to specialist schools were also evident, allowing sharing of knowledge and expertise, training and development, and dual placement arrangements. Effective communication about individual pupil needs was characterised by frequency (information provided on a regular basis), consistency (established networks and standardised systems of communication) and reach (all relevant stakeholders involved). This was supported by opportunities for training and staff development to promote skill acquisition and confidence among those working 'at the chalkface'. Work with peer groups as also evident - in particular, strategies to develop awareness, understanding and tolerance - such as sensitively handled disclosure sessions and circles of friends. In relation to the notion of specialist pedagogy for pupils with ASD, our data largely supported the 'general differences' position espoused by Lewis & Norwich (2005); that is, effective provision reflected consideration of pedagogic needs that are common to all, specific to group (e.g. ASD) and unique to individual learners.

e) Contributions to wider ESRC initiatives (eg Research Programmes or Networks)

If your project was part of a wider ESRC initiative, please describe your contributions to the initiative's objectives and activities and note any effect on your project resulting from participation.
[Max. 200 words]

Not applicable to this project.
3. EARLY AND ANTICIPATED IMPACTS

a) Summary of Impacts to date
Please summarise any impacts of the project to date, referring where appropriate to associated outputs recorded on the ESRC website. This should include both scientific impacts (relevant to the academic community) and economic and societal impacts (relevant to broader society). The impact can be relevant to any organisation, community or individual. [Max. 400 words]

At the 'academic' level, the early impact of the project has been in developing new knowledge and understanding of the role of peer group factors in the inclusion of pupils with ASD. This has included the development of a theoretical model of peer group interaction processes for pupils with ASD, which seeks to explain how the patterns outlined in (2d) above emerge. Distinctive understandings of the influence of teacher attitudes, experience and knowledge, and the deployment, training and teacher relationships of teaching assistants on the conceptualisation and practice of inclusion for pupils with ASD have also emerged. At the 'practitioner' level, awareness has been raised regarding the challenges and opportunities posed in inclusive education for pupils with ASD, with a clear emphasis on sharing effective practice.

There is clear, prima facie evidence of the impacts outlined above even at this early stage. For example, in response to a feedback questionnaire item about the influence of the regional seminars (below) on delegates' practice, the mean response was 4.2 (1 = not at all, 5 = a lot). There is also independent evidence of the project's distinctive contribution to knowledge. A peer reviewer of a project output for the journal Autism stated, "This research has much to add to the growing body of literature about social skills of individuals with ASD in mainstream settings"

Impact is being (and will continue to be) achieved through a comprehensive and varied dissemination strategy. To date this has included:

(1) Conference presentations at international, national and local levels (including National Association of School Psychologists (Chicago, USA), British Institute of Learning Disabilities (Birmingham, UK), National Autistic Society (Preston, UK), Making Research Count (Salford, UK) and Autism: A Hands On Approach (Stockport, UK))
(2) Five regional user seminars (Manchester, Birmingham, Durham, Surrey, London)
(3) Papers for peer-reviewed journals (7 published or in press to date)
(4) Articles for user publications (2 published or in press to date)
(5) Website to house study outputs and resources generated through the project (www.asdinclusion.info)

(see Outputs section on ESRC website for details)
b) Anticipated/Potential Future Impacts
Please outline any anticipated or potential impacts (scientific or economic and societal) that you believe your project might have in future. [Max. 200 words]

Papers in development will focus on developing understanding and knowledge of pupils' learning and engagement in the classroom, in addition to an exploration of the project data through the theoretical lens of the specialist pedagogies model/debate. More practically oriented outputs will focus on disseminating the key principles of effective inclusion for pupils with ASD, using the autistic triad (communication, interaction, imagination) applied to school systems, processes and infrastructure as the 'hook'. Beyond this, there is scope for a whole series of future outputs covering the different perspectives and issues raised through the project.

Such is the wealth of the data generated through the project that a single or co-authored book for a major publisher is also anticipated. The book would aim to bridge the gap between research and practice in the area of inclusion and ASDs and would therefore be of interest to both academics and practitioners.

All participating schools and seminar delegates (see above) are being kept informed regarding project dissemination and it is anticipated that the indications of practical impact noted above (3a) will emerge as tangible changes in provision over time.

You will be asked to complete an ESRC Impact Report 12 months after the end date of your award. The Impact Report will ask for details of any impacts that have arisen since the completion of the End of Award Report.

4. DECLARATIONS

Please ensure that sections A, B and C below are completed and signed by the appropriate individuals. The End of Award Report will not be accepted unless all sections are signed.

Please note hard copies are NOT required; electronic signatures are accepted and should be used.

A: To be completed by Grant Holder

Please read the following statements. Tick ONE statement under ii) and iii), then sign with an electronic signature at the end of the section (this should be an image of your actual signature).

i) The Project

This Report is an accurate overview of the project, its findings and impacts. All co-investigators named in the proposal to ESRC or appointed subsequently have seen and approved the Report. YES

ii) Submissions to the ESRC website (research catalogue)

Output and impact information has been submitted to the ESRC website. Details of any future outputs and impacts will be submitted as soon as they become available. YES
iii) Submission of Datasets

Datasets arising from this grant have been offered for deposit with the Economic and Social Data Service.

**YES**

**SIGNATURE:**

**NAME:** NEIL HUMPHREY  **DATE:** 26/05/11

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**B: To be completed by Head of Department, School or Faculty**

*Please read the statement below then sign with an electronic signature to confirm your agreement.*

This Report is an accurate overview of the project, its findings and impacts.

**SIGNATURE:**

**NAME:** PROF MEL WEST  **POSITION:** HEAD OF SCHOOL  **DATE:** 26/05/11

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**C: To be completed by Finance Officer of Grant-Holding Research Organisation**

*Please read the statement below then sign with an electronic signature to confirm your agreement.*

ESRC funds have been used in accordance with the ESRC Research Funding Guide. All co-investigators named in the proposal to ESRC or appointed subsequently have seen and approved the Report.

**SIGNATURE:**

**NAME:** PAUL ROWBOTHAM  **POSITION:** RESEARCH FINANCE OFFICER  **DATE:** 26/05/11