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Right to Read Campaign. Information at for example
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APPENDIX 1 Books Required for Primary & Secondary Schooling (Sorensen, in RNIB 2005)

Primary 1	
9 Maths books	9
7 Topic books	7
5 Reading books each with 15 associated smaller books	80
Primary 2	
9 Maths books	9
8 English books	8
21 Topic books	21
Primary 3	
3 Maths books	3
19 English books	19
11 Topic books	11
1 dictionary	1
Primary 4	
4 Maths books	4
PCM 46 booklets	46
PCM 96 booklets	96
1 Nelson Spelling	1
1 Topic books	1
1 dictionary	1
Primary 5	
3 Maths books	3
12 English books	12
50 – 60 grammar worksheets	60
1 Nelson Spelling	1
1 Password	1
15 Topic books	15
Primary 6	
4 Maths books	4
15 English books	15
1 Nelson Spelling	1
9 Topic books	9
1 dictionary	1
Primary 7	
4 Maths books	4
16 English Books	16
1 Topic books	1
1 dictionary	1
Total Books required for seven years of primary schooling	461

Books required for six years of secondary schooling	
Advanced Higher English	28
Advanced Higher French	18
Advanced Higher German	68
Higher Maths	17
Higher History	94
Higher RMPS	88
Standard Grade Biology	21
Standard Grade Music	11
S1/2 Science	17
S1/2 R.E.	4
S1/2 Geography	13
S1/2 Modern Studies	25
S1/2 Home Economics	4
S1 – 6 PSD	41
Total Books required for six years of secondary schooling	449

Although it appears that almost 500 separate texts are prepared for primary sector Sorenson has noted that 60 worksheets compare to 3 English books. Other similar comparisons have been made to arrive at a figure of around 375 texts needed to complete seven years of primary schooling.

APPENDIX 2 Short form questionnaire

QUESTIONNAIRE ON ACCESSING TEXT MATERIALS

Please complete this questionnaire and give it to CALL Centre, or return it to: The CALL Centre, The University of Edinburgh, Paterson's Land, Holyrood Road, Edinburgh EH8 8AQ. Tel. 0131 651 6235. Fax 0131 651 6234.

1. Who are you?

Learning Support Teacher Class / Subject Parent

Child Young Person Other

2. How many pupils / people who have difficulty with reading or with manipulating books and learning resources do you work with?

0 1-5 5-10 10-20 more than 20

3. What support do you provide to give access to books and learning resources? (tick all that apply)

Human Reader Adapt into different colour/ font/ size Audio tape/CD/ MP3

Electronic / digital / computer version Other (what?)

4. In which of these alternative formats would it be most useful to be able to get material for the people you work with?

Adapt into different colour/ font/ size Audio tape/CD/ MP3

Electronic / digital / computer version Other (what?)

5. Can you give an estimate of the numbers of materials that a pupil might require in the above formats over an average year?

Textbooks ____ Fiction / Reading books ____ Teacher produced worksheets ____

Commercial Worksheets ____ Assessments (eg NABs) ____ Exams ____ Other ____

6. Are there any specific textbooks or resources that are needed in an accessible format?

7. Are there any specific formats you need (e.g. particular digital formats like PDF / Word / Daisy)?

8. Do you have any other comments about making print materials more accessible for people who have reading difficulties?

Would you be willing for the CALL Centre to contact you at some time in the future to discuss your answers in more detail? Yes No

Name _____ School (if applicable) _____

Address _____

Tel. _____ Email _____

APPENDIX 3 Long form questionnaire

Books for All Questionnaire on Accessing Text Materials

BRIBE!

Staff who send back completed questionnaires will be entered into a raffle. The prizes will be accessible digital books from publishers such as Crick Software (Clicker format); Don Johnston's Start to Finish series; RNIB (Daisy audio format).

The CALL Centre has been funded by the Scottish Executive Education Department to investigate the need for textbooks, worksheets, assessments, and other learning materials in accessible forms.

We want to find out:

- The number of students with additional support needs who have difficulty reading and accessing age-appropriate learning materials.
- How schools currently support print-disabled students to access books and other written resources.
- The number of students who might benefit from using learning materials in alternative, accessible formats.
- The number and type of accessible learning resources required.

You can fill in the questionnaire on your own behalf, or on behalf of your department school or unit (e.g. if you work in Support for Learning dept. or specialist local authority service), and either for all the students you support, or just those in one group/class or year (e.g. students in S1, say).

Please copy and give the questionnaire to anyone you think might be interested.

Please complete this Questionnaire and return it either by email or in the enclosed Freepost envelope by Friday 26th November to:

The CALL Centre,
University of Edinburgh,
Paterson's Land, Holyrood Road,
Edinburgh EH8 8AQ
Tel. 0131 651 6235. Fax 0131 651 6234.
Paul.Nisbet@ed.ac.uk

1. About you

I am a...	Tick
Class teacher	<input type="checkbox"/>
Support for learning or specialist teacher	<input type="checkbox"/>
Principal Teacher (e.g. SfL) / Team leader / Unit head	<input type="checkbox"/>
Head teacher	<input type="checkbox"/>
Education manager / officer	<input type="checkbox"/>
Parent	<input type="checkbox"/>
Child / young person	<input type="checkbox"/>
Other (please specify) _____	<input type="checkbox"/>

I work in...	Tick
Mainstream Primary	<input type="checkbox"/>
Mainstream Secondary	<input type="checkbox"/>
Special school / unit (primary)	<input type="checkbox"/>
Special school / unit (secondary)	<input type="checkbox"/>
Peripatetic service (primary)	<input type="checkbox"/>
Peripatetic service (secondary)	<input type="checkbox"/>
Other (please specify) _____	<input type="checkbox"/>

I am completing this questionnaire on behalf of...	Tick
Myself	<input type="checkbox"/>
My dept / unit / school / local authority (please circle which, and how many colleagues work there)	<input type="checkbox"/>

I am completing this questionnaire with regard to....	Tick	Class / school / local authority roll *
A pupil or group of pupils	<input type="checkbox"/>	<input type="checkbox"/>
A class	<input type="checkbox"/>	<input type="checkbox"/>
A year group (please specify which, e.g. S3)	<input type="checkbox"/>	<input type="checkbox"/>
A school	<input type="checkbox"/>	<input type="checkbox"/>
An education authority	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify) _____	<input type="checkbox"/>	<input type="checkbox"/>

(* The total number of all pupils in your class / year group / school - not just those with additional support needs)

Name of your local authority:

2. Think of the children or young people you/your dept/unit work with. In comparison to most other pupils of about the same age, how many have difficulty with any of the following? (Tick all that apply)

Pupils' difficulties	Tick	How many pupils?	For your comments
Reading text			
Seeing text			
Understanding text			
Holding / turning pages of a book or document			
Recording work e.g. handwriting, spelling			
Other (please specify)			

3. Now think of the support the same pupils actually get to help them access written learning resources. What support or formats do you or others provide? Please write in the approximate numbers of pupils that you work with who are helped by each method/format. Use as many boxes as is appropriate for each area of difficulty and support.

Support given with:	Reading text	Seeing text	Understanding text	Holding book / turning pages	Recording work e.g. handwriting	Other (please specify)
Human support						
Reader						
Scribe						
Signing						
Printed formats						
Different font						
Large print						
Coloured paper						
Simplified language						
With symbol support						
Braille						
Coloured lenses/ film						
Magnifier/ low vision aid						

APPENDIX 3

Support given with:	Reading text	Seeing text	Understanding text	Holding book / turning pages	Recording work e.g. handwriting	Other (please specify)
Audio formats						
Tape						
Audio CD						
MP3/digital audio file						
Computer formats						
Digital resources on computer						
Scanned into computer						
Read by computer (text to speech)						
Word processor or other writing software						
Other (please specify)						

Please describe how you/your dept/unit make, or where you obtain accessible books and learning resources (e.g. particular hardware or software tools, commercial publishers, voluntary sector providers)

4. Are you/your dept/unit able to obtain or create sufficient copies of books and other learning materials in accessible formats?

Yes No

If you answered 'no' to this question:

Why - what are the reasons for difficulties in obtaining or creating materials?

Does this lack of learning materials in accessible formats have an adverse effect on your pupils' ability to access to the curriculum?

No effect Some effect Large effect

Would you need fewer staff to read/scribe for your pupils if you could obtain accessible learning materials at an affordable cost?

Yes No

5. How much of your/your dept's/unit's time is spent creating accessible books and learning resources?

Less than 10%	<input type="checkbox"/>
10% to 24%	<input type="checkbox"/>
25% to 49%	<input type="checkbox"/>
50% to 74%	<input type="checkbox"/>
More than 75%	<input type="checkbox"/>

6. How many accessible books, worksheets, assessments, audio files etc do you/your dept/unit make each year (on average)?

No of accessible items per year

Formats you produce (large print, audio, computer files etc)

7. Imagine an ideal world! Consider the methods of support and the formats that you think the pupils might benefit from. Please write in the approximate numbers of pupils that might be helped by each method/format. Use as many boxes as is appropriate for each area of difficulty.

Support given with:	Reading text	Seeing text	Understanding text	Holding book / turning pages	Recording work e.g. handwriting	Other (please specify)
Human support						
Reader						
Scribe						
Signing						
Printed formats						
Different font						
Large print						
Coloured paper						
Simplified language						
With symbol support						
Braille						
Coloured lenses/ film						
Magnifier/ LVA						
Audio formats						
Tape						
Audio CD						
MP3/digital audio file						
Computer formats						
Digital resources on computer						
Scanned into computer						
Read by computer (text to speech)						
Word processor or other writing software						
Other (please specify)						

8. In this ideal world, how many books and other learning resources in accessible formats are needed by your pupils? Please use the table below to estimate the approximate number of different learning materials that one of your pupils might require over one school year in accessible formats. If you wish, copy this page and complete it for more than one pupil/year group. If you can't give numbers, tick the resources and formats you need.

Pupil difficulty /difficulties (e.g. reading, seeing, writing etc):									
Pupil year group:									
Number of resources required in one year:	Text books	Reading books	Commercial worksheets	Teacher produced worksheets	Exam papers / prelims	Assessments: 5-14	Assessments: NABs	Exam papers and prelims	Other (please specify)
Different font									
Large print									
Coloured paper									
Simplified language									
With symbols									
Braille									
Tape									
CD									
MP3 file									
Digital resources on computer									
Text read by computer									
Other (please specify)									

9. Are there any specific textbooks or resources that you would want in an accessible format? Please say which format(s) you need.

10. How do you think print materials can be made more accessible for people who have reading or writing difficulties?

Would you be willing for the CALL Centre to contact you to discuss your answers in more detail?

Yes No

Name (if you would welcome contact):	
School (if applicable):	
Address:	
Tel:	
Email:	

APPENDIX 4 Producing multiple formats

It should be clear from the main report that there is no one format that is accessible to all pupils, and that materials are required in several formats depending on the support need of the pupil and the subject matter.

Some stages involved in producing multiple formats are quite straightforward albeit time-consuming. A brief outline is given below.

Digital source file available

Portable Document Format (PDF)

In most cases the process of producing accessible formats begins by obtaining an original source document from the publisher, usually in PDF. Some publishers cannot supply PDF and only have the material in a desktop publishing format such as Quark Xpress. For many pupils, PDF is a satisfactory accessible digital format.

Conversion for PDF

Where PDF is not appropriate Acrobat Professional can convert PDFs into other formats such as MS Word, HTML and XML. Adobe also offer a free online facility for converting PDFs into HTML 3.2 or text. Such automatic conversion of complex, untagged PDFs is unlikely to produce satisfactory results, and documents usually require manual editing.

Commercial firms offer services to convert PDF or other digital formats to XML, HTML or MS Word and we understand that RNIB are currently working with publishers in the UK to investigate if and how a production process for converting PDF or other source files from publishers to accessible formats could be developed.

Even though it is possible to convert digital formats in this way, it is expensive, and so costs would be greatly reduced if publishers were able to provide source texts in a format suitable for conversion.

Digital source file not available

Scanning and Optical Character Recognition (OCR)

If the digital source file is not available, the book can be scanned in to the computer using optical character recognition software, although this is time-consuming and may also introduce scanning errors. Wherever possible efforts should be made to obtain the electronic source.

There are several programs that are commonly used to scan and convert printed material to digital form, and the most popular are Kurzweil 1000/3000 and Abbyy FineReader Pro. The Kurzweil products are designed specifically for scanning resources for children who have difficulty accessing books; they are quick and easy to use and produce digital books that look very similar to the printed copy. Many local authorities, schools and Universities in the UK use Kurzweil software. The main disadvantage of Kurzweil is that the scanning software is relatively expensive (£725), and the scanned files are read using Kurzweil software which is again relatively expensive (£185 per licence). Several states in the US have

adopted Kurzweil (KES) format as a standard for creating accessible digital resources.

Abby FineReader Pro (£72) appears the most popular package for providers to use to scan materials in order to create accessible digital resources in more common formats such as PDF, Word or HTML. Pages scanned with FineReader in these formats will usually require further processing, editing and structuring in order to make them accessible.

The Books for All project team experimented with a number of different techniques for scanning and creating different accessible formats, and the procedure that gave most flexibility involved:

1. Scanning with FineReader and saving the book or chapter as a single PDF image file (i.e. not recognised). The PDF image file can then be opened by most other scanning and OCR programs, such as Kurzweil 3000, or converted using FineReader itself.
2. Using FineReader to recognise the text, edit it, and save it as Word and PDF.
3. Editing and adapting using Word, followed by saving in a variety of formats (see below).

Editing and structuring to create accessible formats

In most cases, scanned files are saved as PDFs or Microsoft Word documents. Scanned books saved directly in PDF will not be structured or 'tagged' and may not be accessible. Once opened in MS Word however, a provider can edit the document and add structure and accessibility features. The resulting file can then be saved in formats such as Word, HTML, Microsoft Reader, RTF, or, with additional software, tagged PDF and Daisy formats:

- Adobe Acrobat Professional (£38.80 for CD and licence for Scottish schools from LT Scotland) can be used to create tagged PDF files from Word.
- EasyProducer (Dolphin, £348) can create Daisy books from Word files; while the new Dolphin EasyConverter, due later in 2007, will be able to scan books (using a version of FineReader built in to the software) or open PDF, HTML Word and NISO files and create Structured Word, Large Print (in various sizes), Braille, Daisy audio and MP3 audio.

Note that interactive documents such as worksheets or assessments may be better accessed as Word documents anyway.

A significant population would benefit from materials in symbol format. Text from the Microsoft Word document can be copied and pasted into a program such as Communicate:In Print which can automatically add symbols to create a document for non-readers.

Creating switch-accessible Clicker versions follows a similar process whereby text and graphics can be cut and pasted into Clicker pages or grids.

Books in Word can be saved as audio MP3 (recorded using synthetic voices) using low-cost or free software. Or, since EasyProducer and EasyConverter software can create both MP3 and Daisy audio files from a Word document, a pupil who is visually impaired could access material saved in Daisy audio format with an expensive Daisy player while a pupil with dyslexia could listen to the same MP3 file on an iPod.

The common software application in this process is Microsoft Word – it is used to receive scanned files, for editing and structuring and with additional software and for saving the materials in MP3, PDF, Daisy, HTML and Microsoft Reader. By copying and pasting from Word into other applications, resources can be created in symbol and switch-accessible formats.

The best file format for creating ‘intermediate’ files from which the widest range of other accessible formats can be produced is therefore ‘structured’ Microsoft Word DOC format.

By using the tools described, a book would then be available to:

- the small number of pupils with severe visual impairment, in Daisy audio on a Daisy player, or text using EasyReader or other Daisy reader software;
- the much larger number of pupils with reading difficulties, who could access the book via PDF or Microsoft Word with, for example, the free WordTalk text reader;
- pupils with learning difficulties who need symbols (both in printed form and also on-screen);
- pupils with physical impairments using keyboard, mouse or switches.

Communication Aids for Language and Learning (CALL) Centre
University of Edinburgh
The Moray House School of Education
Paterson's Land, Holyrood Road
Edinburgh EH8 8AQ

www.callcentrescotland.org.uk