ANNUAL REPORT

April 2014 – March 2015

CALL Scotland
The University of Edinburgh

National Support for Learning
through
Assistive Technology (AT)
and
Augmentative and Alternative Communication (AAC)

CALL Scotland's Vision

Every child / young person in Scotland with a disability or additional support needs has the curriculum materials, the Assistive Technologies and/or Augmentative and Alternative Communication tools they may need - and the support to use them effectively – in order to participate effectively and fulfil their potential through learning and achievement.

CALL Scotland's Mission

To help children and young people to overcome disability and barriers to learning created by their environment, and to fulfil their potential, CALL Scotland provides pupils and families, local authorities and professionals with -

- Strategic Leadership
- Specialist Pupil Assessment and Support
- CPD and Training
- Information and advice
- Equipment Loans and Technical Services
- Knowledge Transfer, research and development

CONTENTS

> *Thank you for your email and for the support you have extended to the boys. I am delighted that they will be able to use the netbooks at secondary. I'll liaise with A about passing the netbooks on. Could you please also record our praise and appreciation for the service you/CALL have provided, we are very impressed.*
>
> (Primary Principal Teacher)

Summary

Assistive and Communication Technology offers opportunities and challenges for everyone. But for many children and young people with additional support needs or disabilities, technology may be their sole or main way to access information, learning opportunities and the curriculum, demonstrate their knowledge and understanding, and improve their attainment. The pace of change in technology – new devices; new apps; new software, cloud based storage – has certainly afforded new opportunities. It has also introduced or in some cases increased the challenges faced by those supporting learners with ASN and/or disabilities.

CALL has continued to anticipate, plan and respond to these challenges by extending the reach of the work we undertake while at the same time addressing the depth of detail required to get it right for each child and deliver an improved learning environment.

At times of increased pressure on local authorities and reduced budgets, CALL's track record in identifying sustainable low-cost, effective and efficient solutions in the area of Assistive and Communication Technology has become increasingly recognised.

Funding

CALL is funded primarily by the Scottish Government Learning Directorate to help learners, practitioners and parents and carers get the most from technology to access the curriculum and for communication. We also have a small annual grant from the Scottish Government Care, Support and Rights Division that funds information, advice and equipment loans for adults. SQA funds out partnership and development work around digital exams and assessments, while assessment and support of individual pupils in schools is undertaken via partnership agreements with local authorities. Lastly, we generate income through delivery of professional learning in Edinburgh and on site in schools.
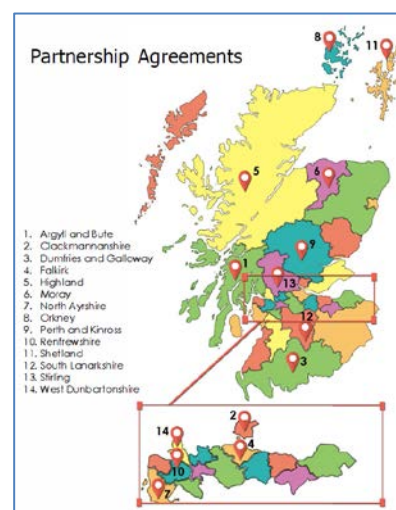
CALL activities

CALL endeavours to work across all tiers of educational provision, through direct support for learners and staff in school; by providing a programme of Professional Learning; through our web sites; by lending equipment for evaluation; through our national projects and services; and by collaborating with national and local governments and agencies.

CALL works with a wide range of leaners with additional support needs, using a range of technologies. This includes, for example, learners with:

- Communication Support Needs, who may require an electronic communication aid;
- dyslexia or reading/writing support needs, who might require text-to-speech software to access texts, and speech recognition software to write and respond;
- visual impairment, who may need digital versions of textbooks and curriculum resources in order to use magnification features on a computer or tablet;
- physical disability, who require specialist devices to access their device or their communication aid, such as switches or eye-gaze technology;
- severe and profound learning needs, who might benefit from software and apps to stimulate and enhance early learning experiences.

Highlights in 2014-15

2014-15 has been another very successful and productive year and some of the 'numbers' make impressive reading. The number of visits to the CALL web sites increased by 25% to a remarkable 711,641, while the number of resources downloaded more than doubled, to 195,834.

> "I find this site invaluable because we can download on to iPads and then the screen and fonts can be adapted for dyslexic students and students with sight issues."
>
> (Secondary school teacher on the Books for All Scotland Database)

The success of the Books for All programme has paralleled this substantial growth. The almost 300% increase in the number of accessible books downloaded from the Books for All Scotland Database (31,315 compared to 11,067 in 2013-14) points to increasing awareness among staff that provision of accessible information is a legal duty.

CALL has long committed to partnership working and in 2014-15 we were encouraged by the results of closer collaborations with colleagues in Education Scotland, the Scottish Government Learning Directorate, the NHS Right to Speak project, and the Scottish Qualifications Authority.

Outcomes have included, for example, substantial input to the European Agency's forthcoming guidance on accessible information, contributions to the Learning Conversations that have been organised by Education Scotland, and our new AAC Scotland web site. Publication of the eagerly anticipated update of Statutory Guidance Planning improvements for disabled pupils' access to education has already led to increased awareness on what is needed to improve the accessibility of ICT in schools.

Staff changes

CALL was founded by Phil Odor in 1983 and the first member of staff was Sally Millar. Sally retired in April 2015 and we marked this with a fantastic party on 24 April, attended by friends from Scotland, UK, and across the world. We did our best to pay tribute to Sally's enormous contribution to the fields of AAC and Assistive Technology, and particularly to her commitment and achievements for the children and young people that she has worked with throughout her career. We think we did a good job and we think Sally felt the same! Needless to say, Sally isn't disappearing from the field and will continue to use her considerable talents and energies to the greater good. Watch this space….

At time of writing (August 2015), we are very pleased that Allan, Information Coordinator, has started back after a long period of sick leave. It's great to have you back Allan! We're grateful to colleagues – particularly Sarah, Rebecca and Robert – for their extra efforts during Allan's absence.

We are also pleased to welcome Shirley Lawson to the CALL team. Shirley is seconded from East Lothian until March 2017 and brings a wealth of experience and expertise across assistive technology and education.

Over the next two years we will be working towards the new commissioning and funding arrangement arising from the Doran review, and we are looking forward to the challenges that this will bring.

Paul Nisbet, Director.

CALL Staff Team 2014-15

Sally Millar (0.8 FTE)	Joint Coordinator; Complex ASN and Communication Specialist
Paul Nisbet (1 FTE)	Joint Coordinator; Engineer and Educational Technologist
Dr. Stuart Aitken (1 FTE)	Psychologist and Visual Impairment Specialist
Sandra O'Neill (0.4 FTE wef 1/1/15)	CPD Services Coordinator and Teacher
Joanna Courtney (0.6 FTE)	Specialist Speech and Language Therapist
Gillian McNeill (0.4 FTE)	Specialist Speech and Language Therapist
Craig Mill (0.6 FTE)	Assistive Technology Specialist
Robert Stewart (1 FTE)	Technology Resources, web designer/manager
Allan Wilson (1 FTE)	Information Coordinator (General Enquiries)
Sarah Marjoribanks (0.7 FTE)	Administrator
Rebecca Gow (0.9 FTE)	Resource Developer/Assistant Administrator

CALL Steering Group 2014-15

Dr. Mike Gibson	Chair of Steering Group
Gill Scott	The Scottish Government
Professor Sheila Riddell	Moray House School of Education, University of Edinburgh
Trevor Baxter	South Lanarkshire Council (ASLO representative)
Barry Syme	Principal Psychologist, Glasgow (ASPEP representative)
Martin Vallely	Professional Services Manager: Children & Families, City of Edinburgh Council (ADES representative)
David Watt	Education Officer Supporting Learner, Education Scotland
Tina Woolnough	National Parent Forum of Scotland
Janice Sugden	Scottish Sensory Centre, University of Edinburgh
Marie Foley	Manager, Learning Support Service, East Dunbartonshire
Joan McKay	Principal Teacher Eildon Support Centres, Scottish Borders
Irene Houston	Inclusion Development Teacher, South Lanarkshire Council

1. Strategic Leadership and Collaboration

Funded by: Scottish Government Core Grant

OBJECTIVES

Development and delivery of effective policy and good practice in the use of AT and AAC for pupils with additional support needs or disabilities in Scotland through:

- collaboration with colleagues in The Scottish Government, Education Scotland, Scotland, SQA, local authorities and voluntary organisations;
- collaboration with AAC Leads in NHS Health boards and their partners and with NES and SCTCI;
- collaboration with parents, particularly through the National Parent Forum of Scotland;
- participation in UK and international committees and working groups;
- submissions to legislation and policy-making bodies.

OUTCOMES

CALL strives to establish and maintain solid partnerships working based on trust, openness, transparency and accountability. The organisation is solution-focused and is often recognised as bringing a different perspective through which problems can be framed in new ways that lead to solutions that are both cost effective to the public sector, efficient in delivery to scale and improve outcomes for children and families. As a national centre we consider that the best solutions are those that understand user needs, identify technical solutions, develop technical standards and contribute to the policy environment within which these will take effect.

Scottish Government: Statutory Guidance on Accessibility Strategies

In Scotland, a further step to improving accessibility for disabled pupils and those with ASN took effect following Scottish Government's updating of Statutory Guidance for education authorities, grant-aided schools and, for the first time, schools in the independent sector. Planning improvements for disabled pupils' access to education updates guidance (widely known as 'accessibility strategies') on three improvement areas: access to the physical environment; to the curriculum; and to information and communication. The rapid advances in technology that have taken place since publication of the 2002 Guidance – tablet computers, cloud computing, wireless networking and more – meant that revised guidance was needed.

CALL contributed substantially to the document and the practical Appendices included (see right) have been welcomed as useful planning and self-evaluation tools for schools and local authorities. CALL's input to the guidance drew on real case experience and reports of problems and solutions with the result that the guidance is widely recognised as an important tool in clarifying what schools need to do to comply with the law.

Education authorities and corporate ICT managers have been particularly appreciative of the information about free tools to support accessibility, and of the free resources such as WordTalk and the Scottish Voices provided by CALL. These help them improve the accessibility of their ICT infrastructure, for example, by ensuring that the Scottish Voices and text-to-speech software are installed. CALL's offer of support to help implement the guidance continues to prove popular with authorities.

Education Scotland

Over the past year we have been working closely with colleagues in Education Scotland, and we are grateful in particular to David Watt, Senior Education Officer – Inclusion and Equalities, who invited us to contribute to a number of national events organised by Education Scotland (see *Conference and Study Day Presentations* on p.33). A common observation from CALL Steering Group members is that CALL's services and projects are not sufficiently well known across the country, and this type of collaboration with Education Scotland is one effective method of raising awareness.

Another outcome of this partnership has been the addition of 'tiles' on Glow linking to the CALL Scotland and Books for All Database web sites. Practitioners can add these to their Glow Launch Pads to get quick access to the sites.

Thirdly, provision of Professional Learning in the field of Assistive Technology is one of CALL's core functions. Following discussions with Education Scotland, we intend in 2015-16 to develop a "Route Map through Career Long Professional Learning (CLPL) in Assistive Technology". Route Maps are a joint initiative between Education Scotland and GCTS, and are designed to inform practitioners about opportunities to engage in meaningful CLPL. We will also explore development and accreditation of a professional learning programme in Assistive Technology in Education with GTCS and Education Scotland.

Lastly, Stuart and David represented Scotland on the EU ICT4IAL project (see below).

UK legislation: changes to Copyright Law

A welcome change to the law on copyright came into force on 1 June 2014 in the form of **The Copyright and Rights in Performances (Disability) Regulations 2014**. The change was a UK Government response to arguments put forward by many organisations including CALL Scotland made over a number of years. The revised Regulations improve disabled people's access not only to print materials such as books, but also music and other media including video. Now a person is considered as disabled if the disability prevents the person from **enjoying the work to the same degree** as a person who does not have that disability. Prior to that date, copyright exemption for print materials could only be made for visually impaired people (technically, the definition was broader than visual impairment to include physical disability). While extension to copyright exemption for others such as pupils with dyslexia could be made, that required special licences, or individual agreements with publishers. The presumption now set in law is that so long as the exemption criteria are met, an accessible copy can be made.

European Agency for Special Needs and Inclusive Education: ICT for Information Accessibility in Learning (ICT4IAL)

As well as contributing through partnership working with Scottish Government and on UK platforms, CALL provided input at the European Union Agency level on ICT and inclusion through the ICT for Accessibility in Learning Project with Stuart the 'nominated expert from the United Kingdom (Scotland)'. As the ICT4IAL project moves towards completion new guidelines will be produced to address compliance with Article 9 on accessibility of information under the UN Convention on Rights for Persons with Disabilities. This and other Convention Articles will require improved accessibility not just for disabled learners in classrooms and schools across Scotland but also in businesses and across the public sector.

Scottish Qualifications Authority

We continued to work with SQA to develop and support the use of digital question papers and ICT in assessments (see *Digital Exams and Assessments*). The introduction of the National Literacy Units where use of human readers/scribes is *not* permitted and computer readers and supportive writing technology *is*, has increased pressure on schools and local authorities to provide accessible computers. Schools and local authorities have therefore welcomed the free Scottish computer voices and text reader software provided by CALL which has enabled learners with additional support needs to meet the standards for reading and writing at National 3 and 4, and thereby raise their attainment.

SQA has offered digital exam papers since 2008, and digital exams are now available from most of the awarding bodies in the rest of the UK. CALL has been working with a UKAAF (United Kingdom

Association for Accessible Formats) group to develop standards and guidelines for digital exam papers.

Multi-agency partnership – Scottish Government, SQA, Gaelic, CereProc

CALL is facilitating the development of a Scottish Gaelic computer voice, which should be available in November 2015 from CALL's Scottish Voice web site. The voice is funded by the Scottish Government Gaelic and Scots Unit; the Scottish Funding Council; SQA; and Bòrd na Gàidhlig and is being created by CereProc, the word-leading speech synthesis company that produces Heather and Stuart.

Scottish Government: Doran Review

Following Peter Doran's review on **Meeting the needs of Scotland's children and young people with complex additional support needs**, five Workstreams were established by Scottish Government to support delivery of work around recommendations 17 to 21, to develop strategic commissioning of services. Dr Stuart Aitken represents CALL, SSC and Enquire on the Project Board and also on Workstream 2 (Needs Analysis) while Paul Nisbet is on Workstream 3 (National Commissioning). CALL has continued to contribute to the review process and engaging in planning for the future continued strength of CALL to maintain and increase activity in the important area of delivering services for children and young people with additional, often complex, support needs. Senior CALL staff have also met regularly with Sally Cavers of Enquire, Dr. John Ravenscroft of SSC (the other two services that are currently nationally funded) and David Watt of Education Scotland.

Local authorities

Through its service level agreements (SLAs) CALL continues to offer expertise in the areas of assessment support, professional learning, technical expertise tailored to individual local authority contexts. Further discussion is provided in *Pupil Assessment and Support* and *Continuing Professional Development and Training*.

Scottish Book Trust

One development from the Books for All initiative has been a closer cooperation between CALL and the Scottish Book Trust to produce accessible versions of the shortlisted books for the annual Scottish Children's Book Awards.

The nine books are distributed in PDF: learners with dyslexia or reading difficulties can read the titles with support from computer reader software; students with a visual impairment can zoom to enlarge the text; and readers with physical disabilities can use keyboard or mouse to navigate the books.

The early years 'Bookbug' titles are also offered as *Powerpoint* files, designed to switch or touch screen, and this year, for the first time, we created *Keynote* files for children to access the books using iPads.

AAC, COMMUNICATION MATTERS, & NATIONAL AAC PROJECT (NHS NES)

National AAC project in association with NHS NES

- CALL created a new accessible website AAC in Scotland with online awareness raising and leaning learning modules on AAC. The site received 15,363 visits during the year, attracted by both the training content aimed at a wide cross-section of non-specialists, and by the many resources and practical materials that can be downloaded. (Sally, Craig)

- Collaboration with NHS Education for Scotland (NES) throughout 2014/5 on strategic planning leading to implementation of the recommendations of the 'Right to Speak' report (2012) by Scottish Government, on the development of Augmentative and Alternative Communication provision in Scotland. Collaboration with NHS Education.

- Participation in collaboration meeting with other AAC services to debate a possible national AAC service structure and to identify essential functions provided by any national service(s) (Sally, Gillian, Paul)

- Several members of CALL Staff attended the 'Celebration of Learning' and 'Now Hear Me: It's my right to speak' project events organised by NHS Education for Scotland, to share project outcomes with others.

- Participation as workshop leaders at the Scottish Borders AAC partnership conference funded through Right to Speak (November 2014, Sally, Gillian).

ACiP:S and Communication Matters

- In association with Augmentative Communication in Practice: Scotland colleagues: leadership and participation on national AAC issues. AAC Leads network in process of transferring under the umbrella of Augmentative communication in Practice (ACiP:S) to ensure sustainability planning on completion of the Right to Speak project (Sally).

- In partnership with other members of the ACiP:S network, running Professional Learning and User events. This year's main event was the *Family Fun Technology Day* held in April 2014. Attended by 111 children and families, with CALL and other staff (and some of their families) giving up their free time to be involved in leading activities and providing information.

- Editorship of *Communication Matters* Journal, 3 issues per year (Sally).

- Representation at the annual Communication Matters conference, held in Leeds (September 2014) national conference, included both exhibitor stand and CALL workshop on new AAC Modules (Sally).

- Blissymbols UK Committee and Blissymbolics Communication International Symbol Panel (Sally).

- Participation in conference, roadshow and other events organised by Communication Matters. (Sally, Allan and others). Allan is Returning Officer for Communication Matters Trustee elections.

- Participation in establishing AAC Outcome Measures through workshops and focus group, together with Talking Mats™ staff. This resulted in a new resource for measuring AAC outcomes (Sally, Gillian).

- Piloting IPAACKS (Informing and Profiling AAC Knowledge and Skills) materials, produced by SCTCI on behalf of NHS Education for Scotland.

COLLABORATION WITH PARENTS

National Parent Forum of Scotland

CALL participated again in the annual National Parent Forum of Scotland event held at Bishopbriggs High School in October 2014. CALL also liaised with NPFS in their production of *In a Nutshell* series of publications in which much discussion had taken place over the intentions and practical implications of changes introduced to provision of human readers and scribes in SQA Nationals and other formal examinations.

Family Fun Day

 A practical illustration of CALL's partnership working with parents of families across Scotland is the biennial event of the now keenly anticipated *Family Fun Day.* The day is a fantastic opportunity for children and young people with complex support needs, and their families, to come and have FUN in using technology – creating cakes, art and music with technology, playing games using eye-gaze, driving Smart Wheelchairs, firing switch operated Nerf guns, drenching families and volunteers with switch-operated water pistols – in a safe environment. Many parents view the occasion as a real highlight in their calendar.

PARTICIPATION IN OTHER SCOTTISH, UK AND INTERNATIONAL COMMITTEES AND IN WORKING GROUPS

GLOW and new digital learning technologies

Following discussions with Education Scotland, CALL's contribution to Glow increased both in extending access to additional content for teachers and, through the National Digital Learning Forum, advising on access for pupils with disabilities and additional support needs of both content and of the Glow learning environment itself.

ICT SUPPORT FOR LEARNING, SCOTLAND (ICTSLS)

The ICTSLS network is a Scotland wide community of specialists working with Assistive Technology in schools. Sandra chairs the ICTSLS group and CALL hosted meetings on 7/11/14 and 27/2/15. There were 425 messages posted to the ICTSLS Yahoo Group compared to 468 messages the previous year. Messages cover information that is important to group members as well as requests for advice from the other members. All members across Scotland benefit from the insights gained with queries ranging from iPad accessibility, text-to-speech options, Books for All and accessible formats, speech recognitions and more. ICTSLS forum continues to offer an effective and efficient way for sharing good practice amongst colleagues specialising in the area of ICT and ASN.

UKAAF (UK Association for Accessible Formats)

Based on the ground-breaking work to develop and introduce digital question papers carried out in partnership with SQA, Paul provided expertise to a UKAAF working group to produce standards and guidelines for exam boards in the rest of the UK who are developing digital papers for high stakes examinations.

Other Collaborations

- Discussions with software and communication aid suppliers, making an input to product development.

- Launch of CALL Scotland as an accredited Apple Regional Training Centre (May 2014).

- Support to Scottish Parliament on accessibility of their Digital Strategy (Stuart and Robert).

- Exhibition and presentations at Dyslexia Scotland roadshows and events (Allan, Craig, Paul, Stuart and Sandra).

- Collaboration with BRITE to include Further and Higher Education in the ICT and Inclusion days with June 2014 events held in Inverness and Highland.

- Participation in the Right to Read Alliance and eBook Working Group (Paul).

- Participation in the UK Association for Accessible formats (UKAAF), a membership organisation with a commitment to quality in production of accessible formats (Paul).

- Paul was invited to join the Autism Education Network. CALL provided comments and suggestions for the new Autism Toolbox.

- Paul was invited to join the Addressing Dyslexia Toolkit working group, to support development of the online Toolkit for staff.

- Strategic planning work within Communication Forum Scotland (Sally).

- Presentations to National Literacy Network (Paul).

- Presentations to Scottish Muscle Network (Craig).

Advisory Group memberships
- Scottish Sensory Centre (Stuart)
- Enquire (Stuart)
- NSPCC funded research project: *Exploring deaf and disabled young people's views about the child protection system* (Sally and Stuart).

Submissions to legislation and policy-making bodies

Contributions to legislation and policy are described in the text above, and listed below:

- CALL contributed substantially to Planning improvements for disabled pupils' access to education.
- Contribution to **Guidelines for Accessible Information**, to be published by the European Agency ICT4IAL network.
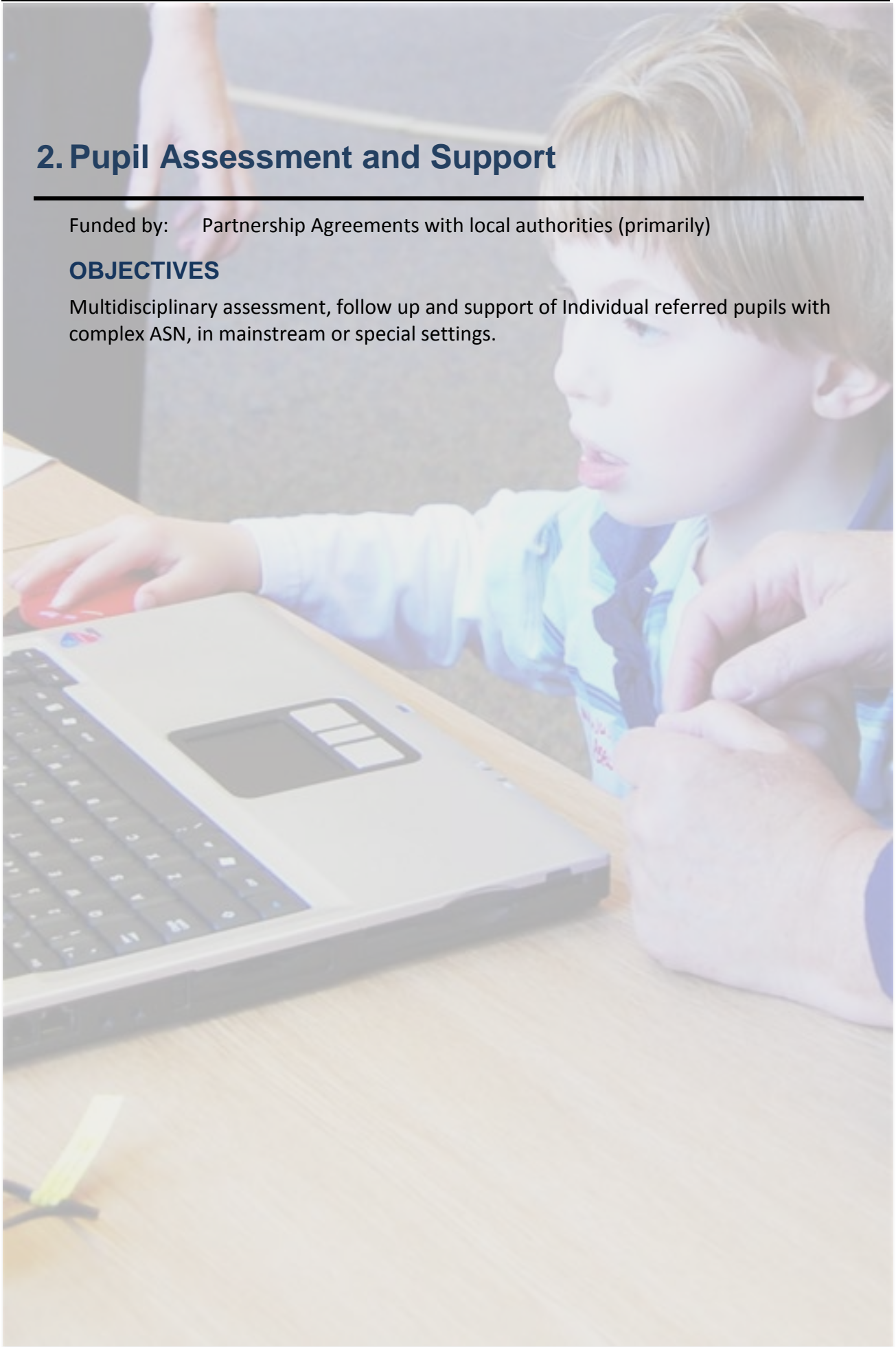- Papers provided to the Doran Review workstreams and Project Board.

2. Pupil Assessment and Support

Funded by: Partnership Agreements with local authorities (primarily)

OBJECTIVES

Multidisciplinary assessment, follow up and support of Individual referred pupils with complex ASN, in mainstream or special settings.

OUTCOMES

- 37 new pupils were referred.
- 41 pupils received a comprehensive assessment for ICT/AAC (48 the previous year).
- 71 pupils were supported directly in school through assessment or follow up visits;
- 140 pupils in 19 local authorities were supported directly in school or indirectly through telephone or email advice.
- 107 assessment and/or support sessions were delivered in schools.
- 16 Partnership Agreements or SLAs were agreed with local authorities for 196.51 days of work for 2014-15. The following local authorities had arrangements with CALL: Argyll & Bute, Clackmannanshire, Dumfries & Galloway, Falkirk, Highland, Inverclyde, Moray, North Ayrshire, Orkney, Perth & Kinross, Renfrewshire, Shetland, South Lanarkshire, Stirling, West Dunbartonshire and Western Isles.
- 43% of Assessment and Support staff time was spent in schools (compared with 58% last year); the balance is taken up with support by telephone and email, equipment preparation, development work, report writing, etc. (34%) and travel (23%). The proportion of time spent in school has fallen compared to time used in CALL to follow up, prepare resources, and write reports. The time spent travelling has decreased slightly from 27% to 23%.

Table 1: Assessment and Support 2010-15

Number of …	2010-11	2011-12	2012-13	2013-14	2014-15
New referrals	35	57	49	43	**37**
Pupils assessed/supported on site	81	98	88	85	**71**
Assessment/support sessions	99	94	152	118	**107**
SLA/Partnership agreements with local authorities	12	14	15	15	**16**
(number of days work)	155.5	161.5	228.5	191.25	**196.5**

Direct work with learners in schools is an essential component in our work. The students referred to CALL for technology or AAC assessment have distinct individual needs and our response is, we hope, just as unique. The process of identifying solutions for one learner feeds into our other activities and informs the content of the web site, our publications, Professional Learning, collaborations with other agencies, and new projects, while working collaboratively with schools and our colleagues in ICTSLS and ACiP:S improves our professional practice.

The "support" part of "Assessment and Support" is vital: assessment may identify appropriate technology and strategies, but often has little impact without follow up support.

Assessment and Support Procedures and Reporting

Last summer we reviewed our assessment and support procedures and as a result developed and piloted a version of the SETT Framework, developed by Joy Zabala (2005). SETT is an acronym for Student, Environments, Tasks, and Tools, and is widely used in North America and internationally. It is a "four part model intended to promote collaborative decision-making in all phases of assistive technology service design and delivery from consideration through implementation and evaluation of effectiveness."

We have been piloting it in 2014-15 for several reasons:

1. Researching and writing a detailed report following assessment takes several hours: given the very limited amount of time that we have funded by our partner local authorities, we were interested in whether SETT offered a more efficient method of reporting.
2. The SETT reporting tools are simple, are focussed on actions, and therefore may offer a more effective mechanism for tracking progress.
3. The SETT framework is designed to promote collaborative working: sometimes we feel that CALL can be called in as 'the experts' and there is an expectation that we or some technology can 'fix the problem'. Of course, we can't – it's the staff, student and parents/carers that actually make it all work – and SETT offers a tool for the team around the child to work through barriers to learning more collaboratively during our assessment and support visits, leading to improved outcomes.

Experiences so far have been positive and the framework does indeed seem to offer a productive and effective approach, and so we will continue to monitor it's use during 2015-16.

EVALUATION AND FEEDBACK

A sample of comments from staff is given below:

Thank you for your email and for the support you have extended to the boys. I am delighted that they will be able to use the netbooks at secondary. I'll liaise with A about passing the netbooks on. Could you please also record our praise and appreciation for the service you/CALL have provided, we are very impressed.

(Primary Principal Teacher)

"R is responding well to the using the laptop and software. He is experiencing successes with his writing and exploring what he is able to do. He continues to need quite a lot of support when using the clicker software but this could be a confidence issue and as his confidence and knowledge grows he will become more independent. He has responded well to using the keyboard although I think the mouse is quite big. He does use the mouse too. I think they are all having a positive impact for R."

(Primary Additional Support for Learning teacher)

"C is doing well. She meets an ASN assistant once a week to discuss how she is using the support aids and to practise. She rates the co-writer highly and is using it. She has to be encouraged to use word talk but finds it can be useful."

(Principal Teacher Additional Support for Learning, Secondary)

"W is becoming increasingly confident in using the equipment and beginning to see a real benefit from it."

Depute Head Teacher, Primary

iPad Apps for Complex Communication Support Needs:
Augmentative and Alternative Communication (AAC)

3. Specialist Information and Expert Advice

Funded by: Scottish Government Core Grant

OBJECTIVES

- Open access national information and advice service delivered in response to enquiries by telephone, letter, email, and proactively through publication and circulation of e-News, newsletter, books, information leaflets and the CALL Scotland web sites.
- Provision of a specialist library and web search facility for all enquirers.
- Access to curriculum resources in Accessible Formats ('Books for All') via the CALL Books for All web site and the Books for All Scotland Database.

Dotted lines indicate that there can be overlap of App features

Identifying Suitable Apps

This wheel does not include every App available in each category. There are hundreds of AAC Apps and many hundreds of combinations of features. This wheel includes Apps that CALL broadly finds reliable and useful and/or that stand out in their category.

For a useful, comprehensive and regularly updated listing of AAC Apps, see www.janefarrall.com

And also... AAC Ferret

This is a very valuable App developed by Spectronics that allows you to search for AAC App by keyword and/or by specific feature(s) e.g. app types; type of voice output; visual representation; vocabulary features; vocabulary display; access; customisation; message sharing; support features.

AAC Ferret

An electronic version of this chart can be downloaded from http://bit.ly/CALL-AAC-App-Wheel
App names are 'clickable' links, taking you to information about the individual App on the iTunes site for the UK.

Switch Access

Switch access may be necessary for some users, usually requiring a bluetooth switch interface and switch(es) tailored to the individual user. Previously, very few Apps were designed specifically for switch access. Although things have moved on since then, these Apps tend to be the ones that offer the widest range of useful scan options and functions, and may still be the 'safest' choice for switch users. These are marked in this wheel with small 's' (beside App icon).

With iOS 7, however, new Accessibility settings built-in to the iPad itself mean that almost any/all Apps (and the iPad itself, desktop, and all functions) can be operated by one or two external switches (or by using the screen as a switch, or even head movements). Many AAC Apps that were not specifically designed for switch access will run satisfactorily under 'switch control' in iOS7 accessibility settings. But be careful! A few do not work at all – or not well – with iOS switch control. So if you know you are going to need switch access, never buy an App that claims to be switch accessible without checking which switch interface is needed, what settings are available and - if possible – perhaps via a specialist centre such as CALL Scotland – whether it actually works or not!

Version 1.0, May 2014 CALL Scotland, The University of Edinburgh.
CALL Scotland is part funded by Scottish Government.

CALL Scotland
Communication, Access, Literacy and Learning

THE UNIVERSITY of EDINBURGH

OUTCOMES

Information and Advice

- 266 significant enquiries were received and given a response, compared with 538 the previous year. We suspect that this significant decrease is mainly due to incomplete or inconsistent recording of emails and phone calls in the CALL Activity Database during the long-term absence of Allan Wilson, Information Coordinator, due to illness. We will monitor this more closely over the next year.

- 48% of enquirers were from education (50% in 2013-2014), 8% from health/social work (9%), 24% from families and people with disabilities (19%) and 20% were from other sources (22%).

- 15% of enquiries related to Dyslexia / Supporting Reading and Writing; 13% to CALL services; 9% to iPads and other mobile devices. Other frequent topics included Books for All work, SQA Digital Exams and Assessments, Software and Advice on Behalf of a Specific Child or Adult.

Publications

- The 2nd edition of the iPads for Communication, Access, Literacy and Learning book was published in May 2014. The electronic version was downloaded 7,461 times in 2014-15 from the CALL web site and has been very well received.

- Following the success of the wheel of iPad Apps for Learners with Dyslexia / Reading and Writing Difficulties in 2013, the CALL team created an additional wheel of iPad Apps for Complex Communication Support Needs: Augmentative and Alternative Communication (AAC), which was launched on 23rd May 2014. This was downloaded a very impressive 12,573 times in the period to the end of March 2015. The dyslexia wheel was downloaded 23,780 times in 2014-2015, bringing the total number of downloads to 35,759. In the case of both 'wheels' we know of local authorities that have distributed copies to schools and of other centres that have made the files available from their web sites so the actual number of copies in use is even higher than our figures suggest.
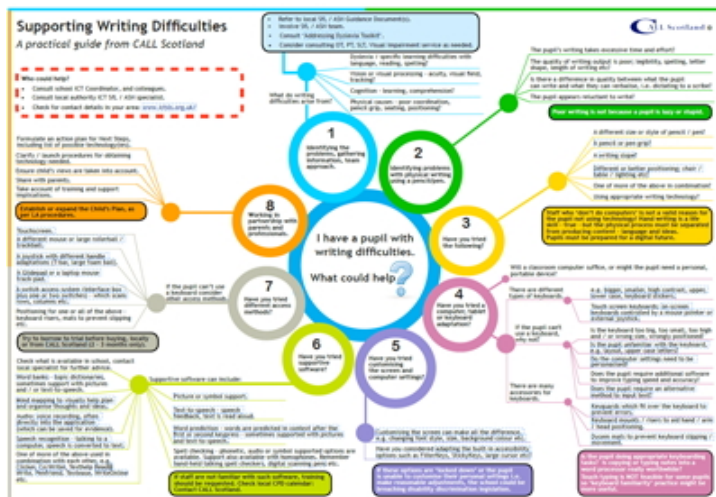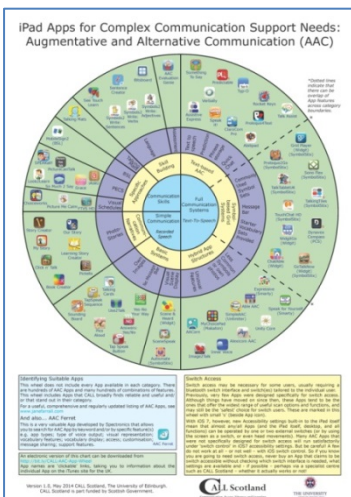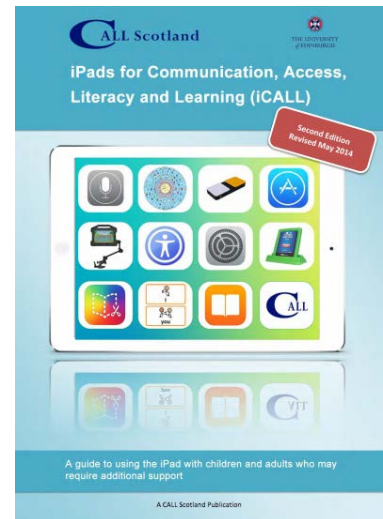
- A new 'Infograph', providing information on Supporting Writing Difficulties in a graphical format was produced in November 2014 and downloaded 2,605 times until the end of March 2015. This will be followed up with an equivalent for Addressing Reading Difficulties. The Supporting Writing Difficulties infogram and the wheel of Apps for Dyslexia were featured as a pull-out resource in the March/April 2015 issue of Special Children.

- 100 publications were sold, with iPads for Communication, Access, Literacy and Learning (38 copies) and Personal Communication Passports (33) accounting for most of the sales.

- Seven issues of the *News from CALL Scotland* email newsletter were sent to over 2,800 subscribers, 59% of whom are based in Scotland.

- 190 Quick Guides are currently available free from the CALL web site, compared with 170 last year.

- Social media is an important method for dissemination of information, particularly with regard to courses and webinars. CALL makes extensive use of blogging (139 blogs in 2014-15) and Twitter (320 tweets, 1,024 followers).

Library

- 30 new items were added to the library; mainly in the form of free electronic downloads.

- 13 journals are currently received.

Web sites

- Visits to the CALL main site increased by over 60% compared to the previous year, to the remarkable total of 338,840; while the number of resources downloaded more than doubled to 146,146 (Table 2; Figure 1).

- A visit is defined as an individual page view. It is a more meaningful measure than a 'hit' which is a count of every single image and button on a page. On average, 1 visit to a web site will generate around 45 hits. The statistics exclude traffic from automatic 'robots'.

Table 2: CALL web site visits and downloads

| CALL Scotland Web Sites	2010-11	2011-12	2012-13	2013-14	2014-15
CALL Scotland main site (visits)	53,571	113,866	160,649	211,075	**338,840**
CALL Scotland (resources downloaded)	53,687	43,338	54,808	72,460	**146,146**
WordTalk (visits)	70,506	92,805	97,068	119,562	**130,518**
WordTalk (copies downloaded)	20,037	24,928	21,504	20,826	**19,555**
The Scottish Voice (visits)	15,487	16,347	13,317	19,973	**23,890**
Heather downloads	728	588	949	855	**786**
Stuart downloads		947	851	742	**679**
Books for All (visits)	26,409	37,893	48,770	70,935	**112,318**
Books for All (downloads)					**28,668**
Communication Passports (visits)	19,947	25,114	29,397	40,484	**53,528**
Digital Exams and Assessment (visits)	4,946	5,142	7,810	17,435	**28,760**
ICT & Inclusion (visits)					**8,424**
AAC Scotland (visits)					**15,363**
Total visits	190,866	291,167	378,515	572,750	711,641
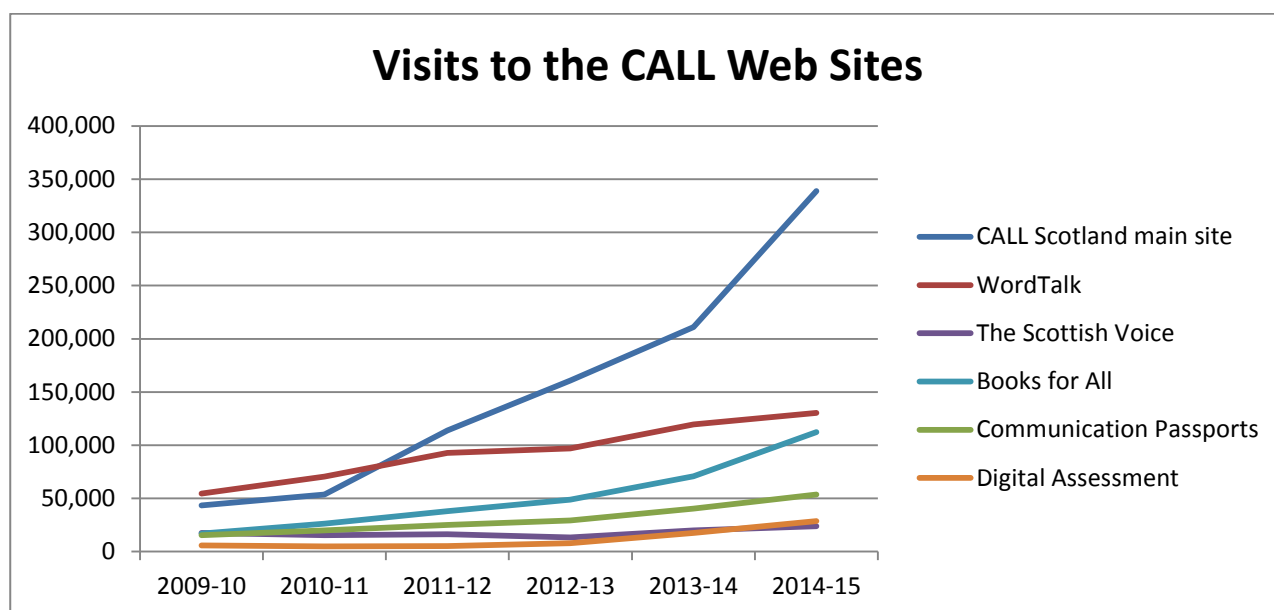
Figure 1: Visits to CALL web sites 2009 - 2015

The two "App Wheels" are the most popular downloads and illustrate the levels of interest in iPads and apps (Table 3).

Table 3: The 'Top Ten' most downloaded resources from the CALL web site in 2014-15.

Resource	Downloads		
	2012-13	2013-14	2014-15
iPad Apps for Learners with Dyslexia/Reading and Writing Difficulties (App Wheel)	-	11,979	**23,780**
iPad Apps for Complex Communication Support Needs (App Wheel)	-	-	**12,573**
iPads for Communication Access Literacy and Learning (book)	2,694	3,174	**7,831**
Keep Talking! (book)	493	348	**3575**
Using Calibre to Read E Quick Guide Books and Convert E-Pub Files for the Kindle (Quick Guide)	1,629	1,136	**3491**
Supporting Writing Difficulties (Infograph poster)	-	-	**2605**
Accessible Text: Guidelines for Good Practice (book)	-	404	**1396**
Augmentative Communication in Practice An Introduction (book)	-	325	**569**
Jokes for communication (Quick Guide)	-	-	**541**
Importing boards into BMV5 (Quick Guide)	-	-	**500**

The CALL web sites are clearly providing a valuable source of information, but for some time we have been conscious of the need to provide more relevant and direct information, particularly for parents. The web sites offer many blogs, quick guides, posters, web pages and other resources, but it is not always easy for users who are new to the fields of Communication and Assistive Technology to navigate the sites and make sense of the information.

An article by a parent in the March 2015 edition of Dyslexia Voice, the Dyslexia Scotland newsletter, brought this home to us:

"Having looked at the CALL Scotland website, I am even more confused. I seem to go from one review to another, follow a link to yet another blog, then to a different website, having come across lots of helpful advice. I managed to decide on nothing and wasn't able to find the most helpful information again!"

We are therefore looking hard at the site content and design and we intend to refresh both and create new material to help parents, practitioners and learners navigate the resources more efficiently and effectively.

Having said that, it is clear from the massive increase in visits and downloads, and feedback from some users, that the web sites are providing a useful and effective resource.

Feedback

"I have just come across your resource 'iPads for Communication Access Literacy and Learning' and would like to say what an amazing resource it is. I am currently undertaking an ICT project at work on the introduction of ipads for classroom use; this resource is full of all the information I have been looking for, and all available in one resource. Brilliant job Craig Mill and CALL Team."

Lecturer, FE College on 'iPads for Communication, Access, Literacy and Learning' book.

'This is a fantastic infographic -many thanks for putting it together, extremely useful'

Teacher on 'Supporting Writing Difficulties' resource.

'Many thanks for your time and for the links below. Again, I found the CALL Scotland website most helpful. I will, as you suggest, follow up on some local links via NHS.'

Support worker seeking information on use of iPad with environmental control systems.

4. Continuing Professional Learning

Funded by: (a) Scottish Government Core Grants (PL development)

(b) Charges to course participants (PL delivery)

OBJECTIVES

1. Identification of PL requirements in (complex) additional support needs, ICT & AAC for staff in both special and mainstream settings.

2. **Development and delivery of CPD.**

OUTCOMES

CALL-based PL

- CALL's Continuing Professional Learning 2014-15 brochure was distributed to around 3,000 schools, organisations and individuals in May 2014. Further, targeted mailings for specific courses were sent in August and December. Information on courses and a booking facility is available on the CALL web site. Details on courses were also distributed through Twitter and as part of the regular CALL email newsletter.

- 206 teachers and others attended 14 courses held in CALL during the year.

- In response to requests from VI specialist teachers, CALL developed and ran an additional iPad course to the programme for the year - *iPads to Support Pupils with a Visual Impairment* - and this has also been delivered in two authorities.

- Although the total number of participants on CALL courses increased this year (up to 206 from 157), we have concerns at the relatively low numbers that participate on the day workshops. For example, in January 2015 we scheduled a course on Speech Recognition software: by December only three participants had registered, and so we converted the course into a free half-day morning seminar, which was attended by 45 practitioners. The event was very well received and led to a new project – *Talking in Exams* – which is funded by SQA.

- This experience prompted us to reflect on our approach to Professional Learning and in particular our role to develop and promote good practice. How can we best fulfil our national remit to develop good practice in Scotland? By offering day courses that cost £120 and attract three participants or by organising free half-day events that attract 45? Or both?

- Legal duties on authorities and staff to ensure all children can access their learning might suggest increased uptake of PL. Reduced uptake on PL courses is consistent with reports that many pupils with ASN do not have that access to learning afforded by assistive and communication technology. As part of its national remit, CALL is therefore looking closely at measures to help bridge that gap. In association with Education Scotland, CALL is putting into place routes through which teachers can acquire the necessary experiences to ensure that technology can plays its vital role in a child's ability to access their learning, demonstrate their knowledge and understanding and thereby improve their attainment.

- CALL again ran free morning seminars (funded by SQA) on supportive ICT practices in national literacy assessment. Two of these seminars were held at CALL, one in Glasgow for special school staff, and another in Aberdeen. These proved very popular with around 170 teachers participating.

Courses April 2014 – March 2015

- 8/5/14   ICT to Support Pupils with Dyslexia
- 6/6/14   iPads to Support Pupils with a Visual Impairment
- 11/9/14   Creating Digital Exams and Assessments
- 2/10/14   Implementing Digital Exams and Assessments
- 9/10/14   Introduction to iPads and Use for Pupils with ASN
- 6/11/14   Dyslexia and the Use of iPads
- 21/11/14   Creating Digital Exams and Assessments
- 27/11/14   iPads and Communication : Fully featured AAC Apps from Symbols to Text

- 10/12/14   ICT and Literacy (free morning seminar)
- 15/1/15   Speech recognition (free morning seminar)
- 22/1/15   Supporting Learners with Dyslexia (Primary)
- 29/1/15   ICT and Literacy seminar (repeat)
- 5/2/15   Implementing Digital Exams and Assessments
- 26/2/15   Supporting Learners with Dyslexia (Secondary)
- 5/3/15   Using Clicker 6 in Schools

Table 4: CPD events 2010-15

|	2010-11	2011-12	2012-13	2013-14	2014-15
PL delivered in CALL					
Number of courses	11	14	16	15	**14**
Number of supplier information days		4	2	4	**1**
Number of participants	128	240	219	157	**209**
PL delivered in schools/authorities					
Number of courses	36	43	38	36	**28**
Number of participants	635	550	635	593	**647**
Presentations at conferences	9	13	13	11	**15**
Exhibitions	12	13	13	16	**10**
Talks for parent/voluntary groups	8	5	7	7	**5**
Family Fun day participants	-	142	-	-	**145**
ICT and Inclusion participants	325	235	205	202	**313**
ACiP:S participants	60	20	75	20	**-**
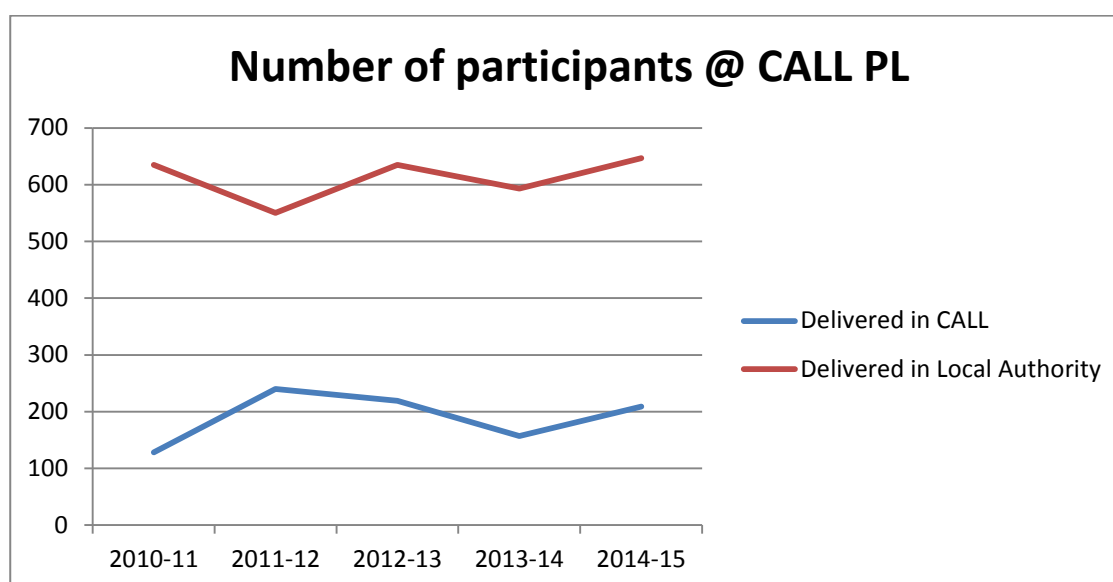
Figure 2: Participants on CALL CPD events 2010-2015

INSET Professional Learning

CALL staff provided 28 sessions of PL for 647 staff in schools and authorities across Scotland. Courses using iPads are very popular and CALL have delivered sessions to support literacy difficulties and for pupils with a Visual Impairment, in addition to the basic introduction to the iPad and how to make the iPad more accessible to all pupils. One area that has proved to be requested repeatedly is how to use ICT to support pupils in their National 3 and National 4 literacy assessments. Digital exams and assessments continue to prove popular.

Where the number of staff participating in 'hands on' courses is greater than 12/14 we have two CALL staff in attendance to ensure the quality of support for all participants.

1/4/14	South Lanarkshire, East Kilbride (2 CALL staff)
22/4/14	Perth &Kinross – CPD day for Primary Support Teachers (3 CALL staff)
29/4/14	Dumfries & Galloway, Kircudbright PS – iPads (pupil)
30/4/15	Dumfries & Galloway, Dalbeattie PS – AAC and iPads
2/5/14	North Ayrshire, St Mathew's, Saltcoats – DE's, assessments and iPads
14/5/14	North Ayrshire – National 4&5 - Literacy
15/5/14	North Ayrshire – St Mary's - iPads
22/5/14	Glasgow – Hampden School – Intro to iPads
2/6/14	South Lanarkshire - Pupil related inset for school staff – (2 CALL staff)
3/6/14	Inverclyde, St Ninian's PS – Clicker 6 (2 CALL staff)
12 & 13 /8/14	Perth College – Dynavox training
15/8/14	East Ayrshire, Park School - iPads
19/8/14	Falkirk, Maddiston PS - EyeGaze
19/8/14	Shetland, Digital Exams and assessments
3/9/14	Renfrewshire – ICT and Dyslexia (2 CALL staff)
9/9/14	Renfrewshire – ICT and Dyslexia (2 CALL staff)
10/9/14	South Lanarkshire, Coulter PS – iPads & Dyslexia
22/9/14	North Ayrshire, Arran SfL staff – iPads
2/10/14	Renfrewshire – ICT and Dyslexia (2 CALL staff)
8/10/14	Renfrewshire – ICT and Dyslexia (2 CALL staff)
23/10/14	Orkney – iPads (education)
27/10/14	Orkney – iPads (health)
3/11/14	Independent, St Aloysius – Digital exams
13/11/14	Argyll &Bute, Dunoon GS – Digital exams and assessments
29/11/14	North Lanarkshire, Redburn School - Boardmaker Studio
3/2/15	North Lanarkshire, Redburn School iPads and AAC (part 1)
16/12/14	Clacks/Stirling joint SfL inset day
17/2/15	Dumfries & Galloway – ipads and autism
18/2/15	Dumfries & Galloway, Brownhall PS – Clicker 6
18/2/15	Aberdeenshire – iPads and VI
20/2/15	Aberdeen – ICT and Literacy assessments
3/3/15	North Lanarkshire, Redburn School - iPads and AAC (part 2)
24/3/15	Glasgow – ICT and literacy seminar
26/3/15	South Lanarkshire – Digital exams

CALL Live! Webinars

- CALL hosted 19 webinars during the course of the year; 15 presented by CALL staff and 4 by suppliers.
- Several of the webinars focussed on particular apps for the iPad and for Android devices.

Webinars 2014 – 15

- 29/5/14   Bitsboard app
- 4/6/14   My Study Bar
- 17/6/14   Clicker Connect app
- 18/6/14   Maths Apps
- 2/9/14   N3/4 Literacy
- 4/9/14   CALL Bookbug Resources
- 29/10/14   Clicker 6
- 5/11/14   Accessible TeeJay books
- 12/11/14   iOS8
- 19/11/14   Books for All Scotland Database – PC
- 26/11/14   Books for All Scotland Database – iPads
- 21/1/15   Tools2Talk app
- 4/2/15   Android Apps – writing
- 25/2/15   Apps for AAC assessment
- 4/3/15   Go Talk Now app
- 11.3.15   Speech Recognition part 1
- 12/3/15   WriteOnline
- 18/3/15   Speech Recognition part 2
- 25/3/15   CoWriter Universal

Webinars are archived and are regularly viewed in the weeks following a webinar. Unfortunately, the Adobe Connect software that we use for the webinars does not record views. Robert is therefore now converting each webinar to a YouTube format which can be monitored.

Conferences and CPD events

CALL, along with Apple and XMA, organised and hosted their *Apple Regional Training Centre Launch* event in Edinburgh (9/5/14)

The *ICT and Inclusion Roadshow,* visited Inverness (10.6.14) and Edinburgh (11.6.14), attracting 313 visitors.

CALL worked with Augmentative Communication in Practice: Scotland to organise *a Family Fun Day* on April 26th 2014 which was attended by 145 adults and children.

CALL organised a morning seminar on *Speech Recognition* on 15 January 2015, attended by 40 staff.

Figure 3: Having fun in a Smart Wheelchair at the Family Fun Day

CALL staff presented at or had exhibition stands at:

- 10/6/16   ICT and Inclusion, Inverness
- 11/6/16   ICT and Inclusion, Edinburgh
- 5/9/1 4   Scottish Muscle Network Annual Conference, NHS Forth Valley
- 21/9/14   Scottish Muscle Network, Beardsmore Hotel/Conference
- 20/9/14   Dyslexia Scotland Conference
- 25/9/14   Dyslexia Scotland, Fife
- 2/10/14   Dyslexia Scotland, Scottish Borders
- 4/10/14   Dyslexia Tutors seminar
- 4/10/14   National Parents Forum Conference
- 8/10/14   BATA: Accessible ExamsForum
- 23/10/14   Dyslexia Scotland Roadshow: Glasgow
- 6/11/14   National Literacy network
- 4/11/14   Scottish Council of Independent Schools (SCIS) Conference
- 14/11/14   Right to Speak AAC Conference, Scottish Borders
- 22/1/15   D&G Autism awareness
- 17/2/15   Aberdeen learning Festival
- 20/2/15   Aberdeen, ICT and Literacy Assessments
- 6/3/15   Education Scotland ASL Conference, Edinburgh
- 26/3/15   North Lanarkshire Learning Festival
- 27/3/15   North Lanarkshire Learning festival

Apple RTC

- On Friday 9th May 2014 CALL hosted the launch event as an Apple Regional Training Centre. This was attended by 93 staff from across Scotland.
- CALL presented on iPad accessibility at the Apple National RTC conference in June 2014.
- CALL presented at the Apple National Disability Conference in September 2014.

Under and post-graduate teaching

- Stuart delivered teaching for PGDE students on 29/9/14.
- Paul and Sally delivered teaching sessions to Moray House Postgraduate Primary students on 16/1/15.

EVALUATION AND FEEDBACK

Courses at CALL or in schools are routinely evaluated through a CALL or local authority evaluation form. We are not always given access to the results of local authority evaluations. 85% of the people attending a course at CALL were 'very satisfied' and 14% were 'satisfied'.

CALL CPD Satisfaction (%)	2010-11	2011-12	2012-13	2013-14	2014-15
Very satisfied	85	79	85	91	85
Satisfied	14	21	15	8	14
Not Satisfied	-	-	-	1	1

Sample comments:

> *Thanks for a very comprehensive picture of iPads - I know there is a lot more to learn!*
>
> *Teacher, Introduction to iPads 9.10.14*
>
> *Good, friendly and supportive environment, learned a lot in short time.*
>
> *Teacher, iPads and Communication 27.11.14*
>
> *The opportunity in such a small group to ask questions and especially to have the opportunity to try all the different resources.*
>
> *Support for Learning Teacher, Supporting learners with Dyslexia (Primary) 22.1.15*
>
> *Clear explanations, useful handouts and materials, the opportunity for hands on work.*
>
> *Implementing Digital exams and assessments, 5.2.15*
>
> *Having hand on experience rather than just listening to speakers. Hearing / sharing of others' experiences.*
>
> *Supporting Learners with Dyslexia (Secondary) 26.2.15*
>
> *Travelled a fair distance to attend this course and wondered at the wisdom when stuck in traffic - but SO glad I did! Best course I've attended for a long time! Thanks.*
>
> *Speech Recognition in Practice 15.1.15*

5. Assistive Technology Loans and Support

Funded by: (a) Scottish Government Core Grants (Assistive Technology Loans and Support service)

(b) other income (estimate £20,000) for purchase of new equipment for Loan Bank, in 2011-2012

OBJECTIVES

1. Provision of a Scottish National Loan Bank of Assistive Technology.

2. Free access to key Assistive Technologies for pupils in Scotland, via the CALL web sites.
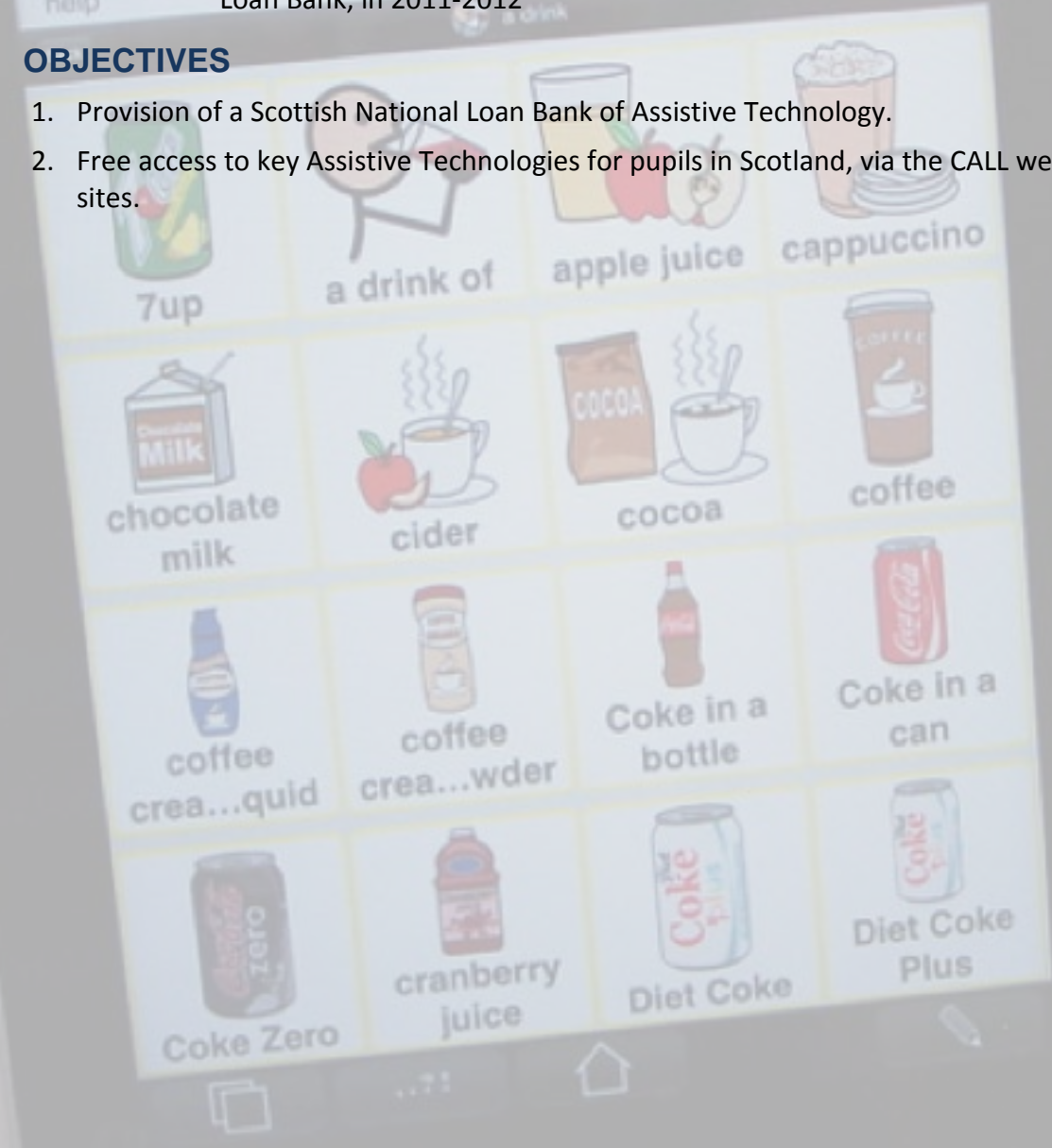
OUTCOMES

- 139 pieces of equipment and software products, with a value of £19,837, were added to the [Loan Bank](#) last year. This compares with £13,396 spent on equipment in 2013-2014. Items purchased included the portable NOVA Chat 10 (right) and Dynavox T-15 communication aids and a new set of 14 iPad Air tablets for professional learning courses.

- 112 of these items, costing £18,250, were purchased through funding from the Scottish Government. The remaining items were either purchased through other funding sources or provided free by suppliers for evaluation purposes.

- The Loan Bank provides borrowers with an opportunity to try different pieces of equipment. 150 new equipment loans, with a total value of £32,800, were issued to clients in 20 local authorities.

- The number and value of items loaned has decreased significantly compared to 2013-2014. The fall in the value of equipment loaned is partly due to fewer loans of expensive eye gaze systems (now used primarily for assessment) and high-end communication aids. This year two eye gaze systems and two high-end communication aids were loaned, compared with six eye gaze systems and nine communication aids in 2013-2014.

- The number of loans provided to assessment clients decreased from 114 in 2013-2014 (54% of all loans) to 61 in 2014-2015 (41%). The reduction in the number of learners who were assessed (41 compared to 48) contributes to this decrease but it is also likely to be due to other factors, such as the nature of support need of the learners; or perhaps increasing availability of equipment in schools which means that assessments do not result in loans.

- Loans and technical support of equipment are a significant 'best value' service, representing a substantial saving to schools and local authorities by ensuring that they buy only suitable and successfully trialled equipment and preventing them from making inappropriate purchases.

- 115 instances of technical support were recorded (e.g. personal advice on hardware, software, communication aids, access or mountings; development of resources; etc)

- [WordTalk](#) was downloaded 19,555 times, compared with 20,826 last year, bringing the total number of downloads since the current version was launched in 2009 to 124,826.

- The Heather [high quality Scottish computer voice](#) was downloaded 786 times (855 last year): a total of 5,027 downloads since it was launched in 2008. The Stuart voice was downloaded 679 times in 2014-15 (742 last year), bringing the total number of downloads since it was launched in 2011 to 3,219.

Table 5: Loans of equipment

	2010-11	2011-12	2012-13	2013-14	2014-15
No. of loans	142	222	231	**225**	**150**
Value of loans	£42,000	£97,000	£87,500	**£71,000**	**£32,800**
No. of Loans to Assessment Clients	63	115	130	**114**	**61**
No. of items added to loan bank	294	375	207	**163**	**139**
Value of items added to loan bank	£80,934	£100,149	£44,447	**£13,396**	**£19,837**
No. of instances of technical support	79	174	170	**160**	**115**

EVALUATION AND FEEDBACK

Borrowers are asked to complete a feedback form when returning equipment. There was feedback on the outcome of a loan for 62 of the 182 loans returned in 2014-15 (34%). Of these, 71% indicated that the 'Equipment met the client's need'; 17% 'did not meet the client's need' and 2% were 'inconclusive'.

38 feedback forms gave an indication of intended future action. Of these, 53% stated that they would try to buy the system that had been borrowed.

Overall, 74% of borrowers who provided feedback were 'very satisfied' with the CALL Loan Service and 25% were 'satisfied'.

"A thoroughly enjoyed making pictures with the spin art with the switch and giving them to family members."

(Occupational Therapist on loan of switch activated toy.)

"Excellent apps which my son really enjoyed using. The iPad was nice and sturdy for him to be able to use easily. I will look into options for getting a second hand iPad to allow more time to use Book Maker and Story Board apps. Thanks!"

(Parent of child with communication support needs on loan of iPad and apps.)

"D enjoyed using it with the teacher, but couldn't use it independently. Thank you for the loan of this equipment. It was good to 'try before we buy' especially as it would not work with our pupil."

(Teacher on loan of enlarged keyboard for pupil with physical disability.)

"R found it very useful having had access to some of the pre-installed apps. In general, it has been a great opportunity for R to be able to try how an iPad would work on a daily basis."

(Teacher on loan of iPad for pupil with dyslexia.)

6. Knowledge Transfer, Research and Development

Funded by: Scottish Government Core Grants and other funders (see individual projects below)

OBJECTIVES

1. Identification of needs and development of research project proposals.

2. Dissemination and knowledge transfer of products and outcomes of project with stakeholders in Scottish education.

OUTCOMES

Reports, papers, articles and books

- Craig, M. (ed) [iPads for Communication, Access, Literacy and Learning](#) 2nd edition, May 2014.

Projects

- AAC Scotland web site and online learning modules, http://www.aacscotland.org.uk/Home/
- Development and distribution of Scottish Gaelic Computer voice (due Autumn 2015)

Conference and Study Day Presentations

Aitken, S. (2014) **Where to find and how to use free digital textbooks and curriculum resources**. ICT and Inclusion, Inverness 10.6.14

Courtney, J. (2015) **Accessible Digital Books for Pre and Early Readers, ICT and Inclusion**, Edinburgh, 10.6.15

Courtney, J. (2015) **Accessible Digital Books for Pre and Early Readers, ICT and Inclusion**, Edinburgh, 11.6.15

McNeill, G. (2014) **Exploring the iPad Apps Wheel for Complex Communication Support Needs: Augmentative and Alternative Communication (AAC)**, ICT and Inclusion, Edinburgh, 11.6.14

McNeill, G. (2014) **An Introduction to Higher Level AAC**, A Right to Speak – AAC Conference, Scottish Borders, 14.11.14

Mill, C. (2014) Scottish Muscle Network (SMN), NHS Forth Valley, 05.09.14

Mill, C. (2015) Scottish Council of Independent Schools (SCIS), iPads and Dyslexia, Glasgow, 05.09.14

Nisbet, P. (2014) **Accessibility Strategies and Accessing the Curriculum.** Inclusion Team Inset Day – Literacy. Perth & Kinross, 22 April 2014.

Nisbet P. (2014) **iPads and Dyslexia**. CALL Apple RTC Launch, 9 May 2014.

Nisbet, P. (2014) **iPad apps for learners with dyslexia**. ICT and Inclusion Inverness, 10 June 2014.

Nisbet, P. (2014) **iPad apps for learners with dyslexia**. ICT and Inclusion Edinburgh, 11 June 2014.

Nisbet P. & O'Neill S. (2014) **Reaching all Learners**. Apple UK RTC Conference, Birmingham, 12 June 2014.

Nisbet, P. (2014) **Reading, writing and recording with ICT**. Autism and the Use of Technology Conference, Centre for Autism Middletown, Armagh. 14 June 2014.

Nisbet, P. (2014) **Accessing SQA Examinations and Assessments using Technology**. Dyslexia Scotland Education Conference, Stirling, 20 September 2014.

Nisbet P. & O'Neill S. (2014) **Assistive Technology**. Apple Accessibility Summit, Birmingham, 24 September 2014.

Nisbet, P. & McDonald, P. (2014) **SQA policy perspectives & digital exam practicalities**. The Future of Exam Accessibility in the UK, London, 8 October 2014.

Nisbet, P. (2014) **Supportive ICT Practices for Literacy.** Education Scotland National Literacy Network, Stirling, 6 November 2014.

Nisbet, P. (2015) **Supporting reading and writing using digital technologies.** Aberdeen Learning

Festival, Aberdeen, 17 February 2015.

Nisbet, P. (2015) **ICT for Learners with Additional Support Needs: 10 years on – where shall we go from here?** Additional Support for Learning 10 years on. Edinburgh, 6 March 2015.

Nisbet, P. (2015) **Inclusive Learning and Support**. Education Scotland Conversation: Curriculum, Assessment and Support for Children and Young people with complex needs. Inverness, 13 March 2015.

7. Books for All

Funded by: Scottish Government Core Grant

OBJECTIVES

Provision of learning materials in accessible formats for pupils with additional support needs .

OUTCOMES

Awareness raising and CPD

We continued to develop the Books for All web site (an average of over 9,360 visitors per month, totalling 112,318 in 2014-15; an increase of 13% on the previous year).

Accessible format textbooks from CALL

In 2009 we approached Hodder Gibson and came to an arrangement to purchase, adapt and distribute their textbooks in PDF format to print disabled students in Scotland. In the first year we distributed 28 individual textbooks and by 2013-14 we distributed 429 books. The work involved in handling requests, burning CDs and posting them out was becoming more significant and so this year we reached agreement with Hodder to distribute the books via the Books for All Database. This new mechanism is much easier and faster for staff and students, much more efficient for CALL, and it also makes the books more readily available to students who use devices that do not have built-in CD drives, such as iPads and tablets.

In 2014-15, there **11,171** downloads of Hodder Gibson textbooks from the database compared with only **429** the year before, when schools had to request the books on CD from us. The new service is clearly reaching many more print disabled students than previously!
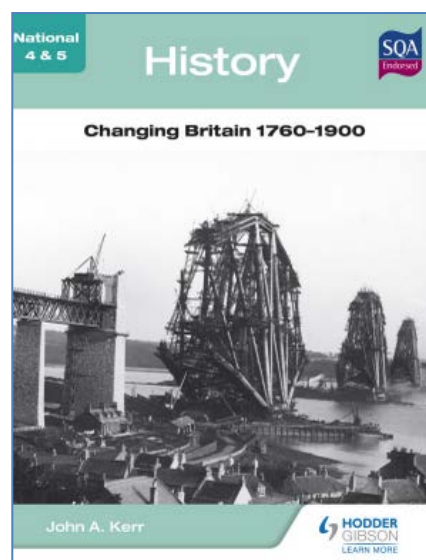
Scottish Children's Book Awards

Similarly, we distributed the accessible copies of the nine shortlisted titles for the 2015 Scottish Children's Book Awards through the CALL Books for All website, rather than on CD. These resources enable pupils who find it hard to read standard 'print' books to take part in the awards along with their peers in the classroom.

For the three early years Bookbug titles, we have always created switch accessible Powerpoint versions with human speech narration. Learners can turn the page by pressing a switch, clicking a mouse button, or even by using eye-gaze systems. However, we felt that schools and parents would appreciate files that could be accessed using iPads, and so we researched the options and then created the books as Keynote files for iPad, again with human narration.
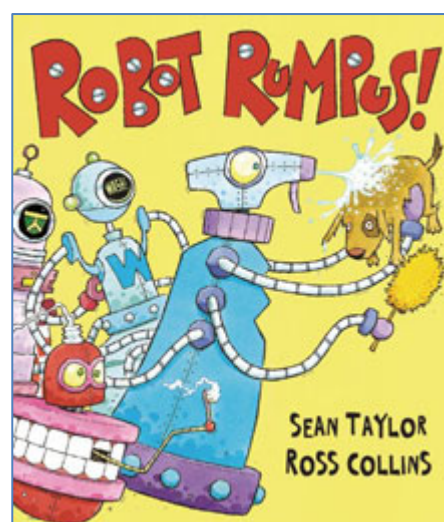
Two other significant developments were taken forward. First, symbolised resources were created

for each of the three Bookbug books which allowed children to participate in the stories and to vote for their favourite entries. These take the form of symbolised overlays for communication aids together with vocabulary sheets and hints and tips for teachers. The materials are created using SymbolStix, under a memorandum agreed with the company.

Secondly, we created resources for use with the **Sounding Board** app for iPads. Sounding Board is a free, simple communication app and the boards offer an opportunity for communication-disabled children to participate in reading, comment on the books, and also to vote.

92 books were distributed this year, while a total of 3751 of the symbolised resources and files were downloaded.
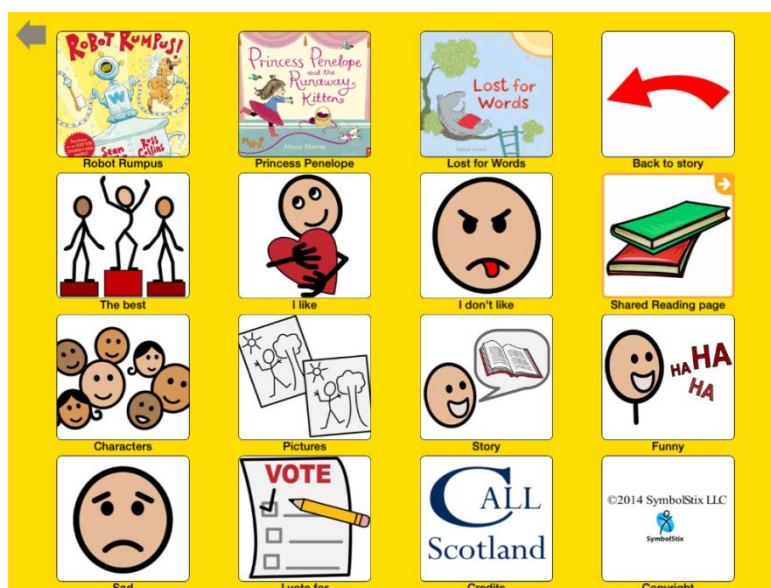

Figure 4: Sounding Board resource for iPad

Books for All Database

On 28 August 2014, we uploaded the first batch of 217 Hodder Gibson textbooks to the Books for All Database.

In July 2014, we finished adapting the entire set of Scottish Heinemann Primary Maths textbooks with interactive answer boxes. This took a great deal of time and work, but the effort was worth it: the books were downloaded 2,191 times in 2014-15.

Following the success of the Heinemann interactive textbooks and assessments, we undertook a similar exercise for the new TeeJay 1a and 1b books. This again was a huge task that involved inventing novel ways to adapt the exercises for on-screen access, and inserting thousands of answer boxes. They were added to the database in October 2014.

TeeJay also provided PDF files for their new National 4 and 5 textbooks.

We are pleased to have received contributions from several colleagues across the country: Marie Lawson, a specialist VI transcription editor in Shetland, contributed Large Print versions of New Maths in Action books; Caroline Jamieson in Moray also uploaded some Large Print titles; Forbes Smith in East Dunbartonshire contributed scanned books; and staff in Inverclyde sent Large Print books.

Lastly, VTSS in Edinburgh and Lothians provided over 15,000 separate files which we sorted and collated into complete books. By the end of March 2015 we had uploaded 91 books to the database. This work will continue in 2015-16.

These efforts to add new content to the database have been fruitful, and a total of 31,315 books were downloaded by 1,033 individual users in 2014-15, compared to 11,067 books by 1,230 users
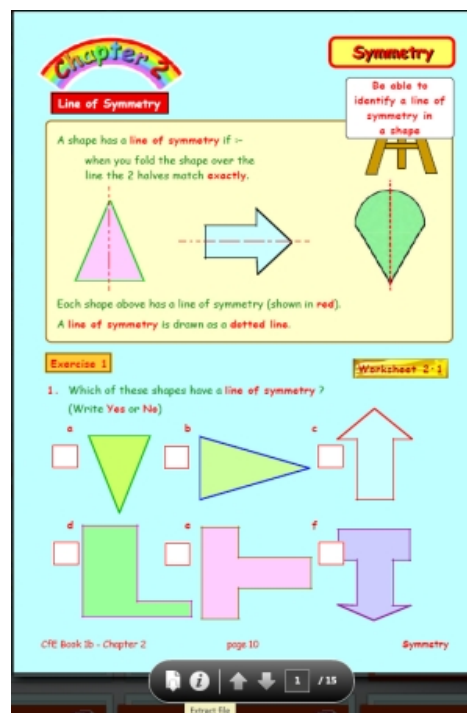
the previous year (Table 6 and Figure 5). This is a huge increase that appears to be due mainly to the availability of the PDFs from Hodder Gibson and TeeJay, which together account for 20,334 downloads.

Table 6: Number of users and books downloaded from the Database

	2010-11	2011-12	2012-13	2013-14	2014-15
Number of individual users	289	523	862	1,230	**1,033**
Number of books downloaded	2,012	3,923	7,257	11,067	**31,315**
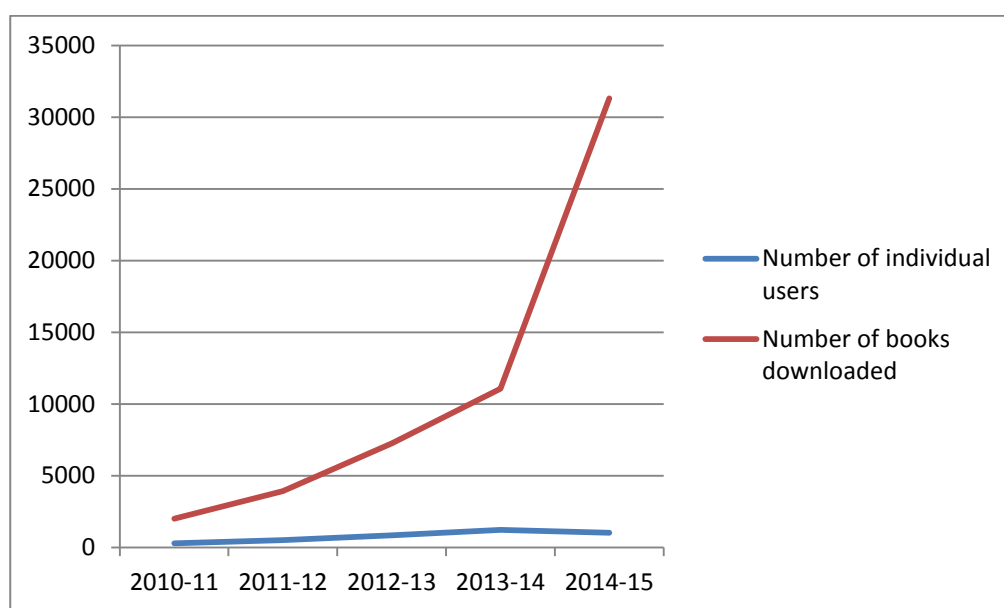
Figure 5: Users and downloads from the Books for All Database

Hodder Gibson was the most popular publisher, followed by TeeJay and then Heinemann (Table 7).

Table 7: The top 10 most downloaded publishers

Publisher	Number of books downloaded
Hodder Gibson	14642
TeeJay Publishers	5692
Heinemann	3388
Nelson Thornes	676
Heinemann Educational	597
Oxford University Press	563
Nelson Thornes Ltd	409
Puffin	308
Ginn and Company	217
Collins	212

The most popular book was TeeJay Curriculum for Excellence Book 1a, which was downloaded 1,116 times. The next most popular was Hodder Gibson's National 5 Biology textbook, with 494 downloads.

The books provided by the publishers are clearly of immense value to learners with print disabilities, and we recognise that this cooperation is not without risk. We rely on the professionalism of staff to ensure that the files are only provided to learners with print disabilities, and not to use them for other purposes – for example, a teacher is not permitted to download a book and use it for whole class teaching on a whiteboard (unless the class are all print-disabled).

We will continue to monitor and develop the information and advice on the database to ensure that the rights of authors and publishers are not infringed.

80% of the books downloaded were eText files in PDF, and most of the other downloads were were Large Print (Table 8).

Table 8: Downloads by format

Format	Number of downloads
eText	25264
Large Print	5850
Large Print 24	62
Large Print 36	43
Large Print 18	25
eText Powerpoint	25
Large Print 14	15
Audio	13
Large Print 26	13
eText Clicker 5	3
Large Print A5	2

It is evident from the data that the Books for All Scotland Database is providing an important service for teachers and learners in Scotland. Two comments from users:

"Sincere thanks for the digital copies of the National 4 & 5 Physical Geography book. My pupils were absolutely delighted to hear and see their textbooks being used with Read and Write Gold. Fantastic service."

(Secondary school teacher)

"I find this site invaluable because we can download on to iPads and then the screen and fonts can be adapted for dyslexic students and students with sight issues."

(Secondary school teacher, Moray)

8. The Scottish Computer Voices

Heather and Stuart continue to be downloaded from the Scottish Voice web site (Table 9). The number of downloads has reduced slightly compared to the previous year, but this is to be expected because once the voices are installed, there is little need to download the voice again.

Table 9: Scottish Voice visits and downloads

	2010-11	2011-12	2012-13	2013-14	**2014-15**
The Scottish Voice (visits)	15,487	16,347	13,317	19,973	**23,890**
Heather downloads	728	588	949	855	**786**
Stuart downloads		947	851	742	**679**

Scottish Gàidhlig Computer Voice

The new National Literacy Units were introduced in 2013-14, and when assessing reading at National 3, 4 or 5, students with reading or visual impairments are not permitted to use a human reader in the assessment of reading. Likewise, students cannot use a scribe when writing is assessed.

Learners can, however, use a computer reader, and can also use technology to support their writing – such as a spellchecker, word prediction, or speech recognition/dictation software.

Consequently, over the past two years there has been a great deal of interest in cost-effective text reader software and in the Scottish voices, and CALL ran several seminars and workshops on using technology in Literacy Assessment, with SQA.

This policy restricting human readers and scribes also applies to Gàidhlig, and Gàidhlig -medium teachers noted that while learners undertaking Literacy assessment in English could use the Scottish voices (or indeed, any of the free English language voices that are supplied with modern computers and devices), a Scottish Gàidhlig computer voice simply did not exist. Therefore, learners with reading difficulties in Gàidhlig were disadvantaged compared to students in English.

Discussions were therefore undertaken with The Scottish Government Gaelic and Scots Unit; Scottish Funding Council; Scottish Qualifications Authority and Bòrd na Gàidhlig, and each agency committed funds for the development of a Gàidhlig voice. CALL is managing the project, and CereProc, the world-class text-to-speech company based in Edinburgh that created Stuart and Heather, are developing the Gàidhlig language model and voice.

The new voice, Ceitidh, is due to be available from the Scottish Voice web site in November 2015 and like Heather and Stuart, is licenced for use by the Scottish public sector.

9. Digital Exams and Assessments

Funded by: SQA

OUTCOMES

In 2014, requests for Digital Question Papers (DQP) continued to increase compared to other types of assessment arrangements (Figure 6), but the actual number of candidates and exams where papers were used actually decreased by 17.5% (Table 10).
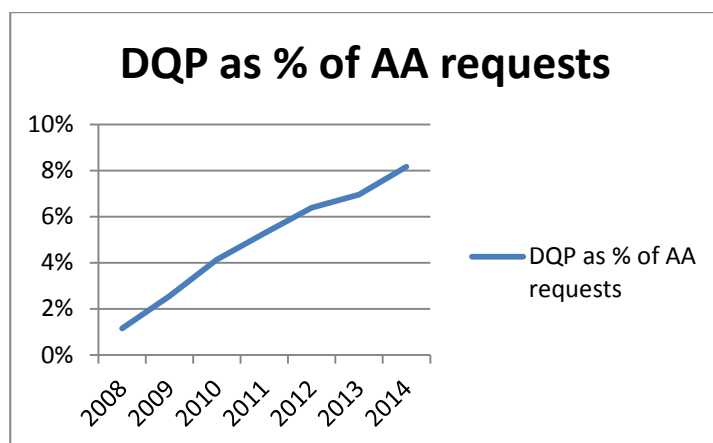
DQP as % of AA requests

Figure 6: Digital Question papers as % of total requests for Assessment Arrangements

The decrease in requests for DQP reflects the overall reduction in the total number of requests for Assessment Arrangements (AA), which fell by 29.7% (Table 11). The significant decrease in the use of Assessment Arrangements in exams is partly because the total number of examination entries fell by 8.9%: a consequence of the phasing out of Standard Grade examinations.

Table 10: Requests for Digital Question Papers

	2008	2009	2010	2011	2012	2013	2014
Number of requests	514	1,167	2,000	2,832	3,694	4,291	**3,540**
Number of centres making requests	46	73	101	149	173	188	**191**
Number of candidates	204	422	675	1,069	1,327	1,677	**1,487**
Mean number of requests per centre	11.17	15.99	19.8	19.01	21.35	23	**18.53**
Mean number of candidates per centre	4.43	5.78	6.68	7.32	7.67	9	**7.79**
Mean number of requests per candidate	2.52	2.77	2.96	2.65	2.78	3	**2.38**

However, given that requests for AA fell by 29.7% and the total number of examinations only fell by 8.9%, then clearly other factors are involved: we surmise that the primary reason for the decrease in AA requests is because Assessment Arrangements are more commonly used by candidates sitting lower level qualifications (i.e. Standard Grade Foundation and General) which as noted above, were phased out between 2013 and 2014.
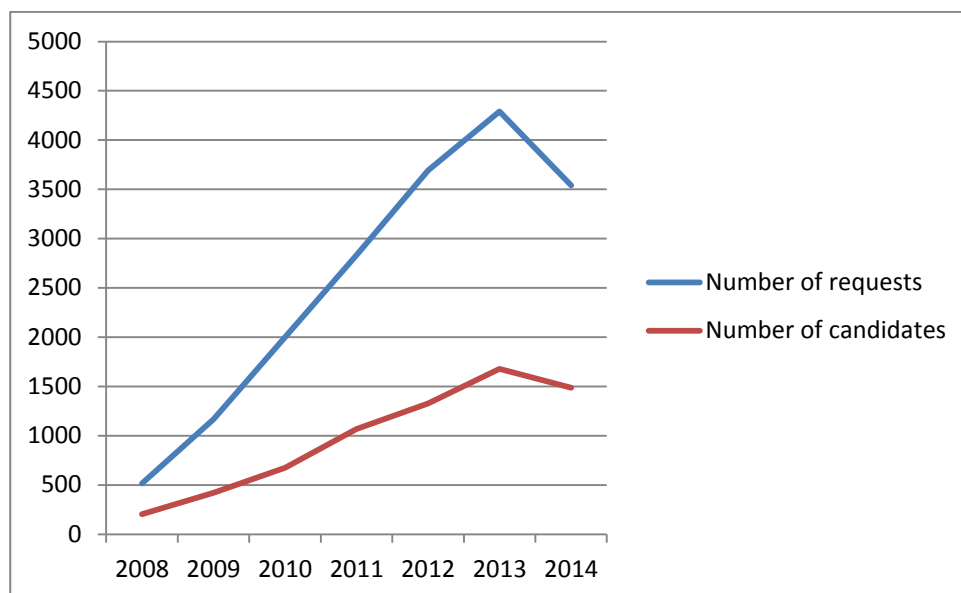

Figure 7: Number of candidates and exams involving Digital Question papers

Table 11: SQA candidates, exam entries and requests for Assessment Arrangements

	2008	2009	2010	2011	2012	2013	**2014**	% change 2013-14
Total number of SQA candidates		159,755	158,908	158,032	160,462	152,428	**132,588**	-13.0%
Total number of SQA entries	742,000	734,043	740,096	733,696	732,235	741,160	**675,361**	-8.9%
Number of AA requests	44,356	45,612	48,416	53,703	57,821	61,680	**43,344**	-29.7%

Another significant change in 2014 has been a reduction in the number of requests for readers or scribes, both of which halved (Figure 8). For the first time, use of technology (either a word processor to type answers, or a Digital Question Paper) was more common than use of a reader or a scribe. This is likely to be partly due to the increasing use of ICT in exams in general, but is also probably due, again, to the phasing out of the lower level Standard Grade Foundation and General papers, where usage of readers/scribes was more common.

In general, we see this as a positive trend in that more candidates are working independently by using technology, and fewer are relying on staff to support them in the assessment.
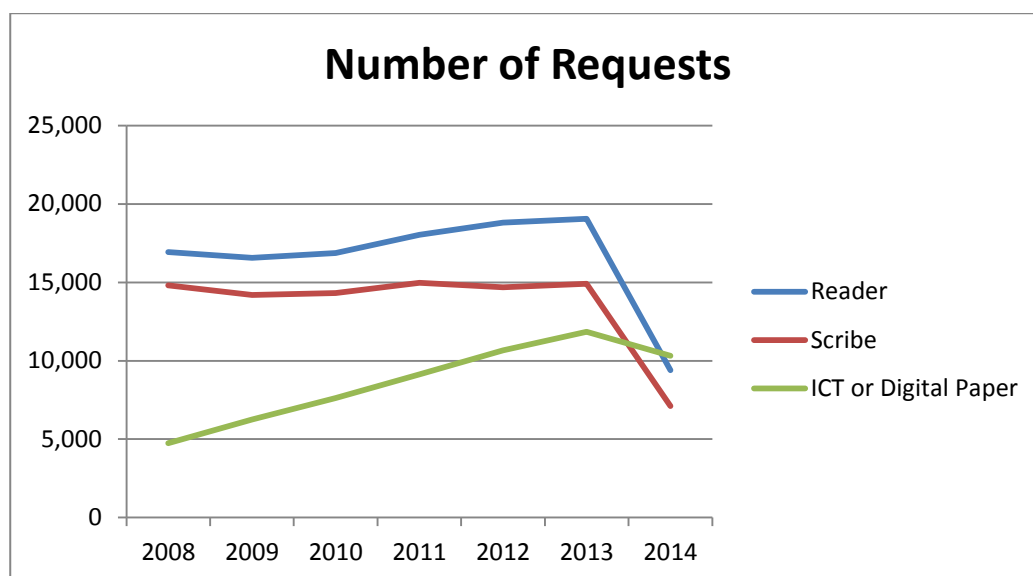

Figure 8: Number of requests for readers, scribes and ICT/Digital Question Papers

National Literacy Assessment

When the National Literacy Units were introduced in the 2013-14 session, the use of human readers was prohibited when assessing reading. However, digital technology, including computer readers, was regarded as a reasonable adjustment for pupils with disabilities. Similarly, human scribes were not permitted in the assessment of writing, while ICT can be used.

In 2014-15, CALL continued to work with SQA and Scottish government to support teachers and practitioners by covering the topic in professional learning courses; by contributing to the roundtable meetings organised by Scottish government, and organising free seminars for practitioners, and by contributing to events organised by SQA.

At the final Round Table meeting on 22/8/14, it was reported[1] that:

"Many of those who had participated in the workshop stated that their initial apprehension and concerns about the arrangements for National Literacy Units had not, in fact, been realised."

But that

"it was apparent that there is significant variability in access to technology between schools in the same area and between schools in different parts of Scotland."

And consequently:

"an information gathering exercise should be undertaken pertaining to the resources which schools, colleges and others have – both in terms of software and hardware – to facilitate the successful management of the arrangements, and that this audit should be extended to include the ability and confidence of practitioners to use ICT. It should be noted, however, that it was not specified which organisation or organisations should have responsibility for undertaking this audit."

CALL did undertake a survey of software and hardware in schools between January and June 2015, but the responses were in no way comprehensive, and so further work is required.

---

[1] EXECUTIVE SUMMARY DISCUSSION OUTCOMES: ROUND TABLE EVENT RELATING TO SUPPORT FOR DISABLED LEARNERS IN NATIONAL LITERACY UNITS August 2014, Ashbrook Research & Consultancy Ltd

10. iPads & ASL

Funded by: Scottish Government Core Grant

OBJECTIVES

The development of new mobile devices, particularly the iPad, is has opened new possibilities for all learners, but particularly learners with additional support needs. However, the rapid pace of change and the huge number of apps available is presenting challenges for local authorities, schools, practitioners, parents and learners. We identified a need to research and disseminate accurate information to help stakeholders develop good practice in the use of iPads.

OUTCOMES

- The 2nd edition of *iPads for Communication, Access, Literacy and Learning* was published in May 2014 and has so far been downloaded 7,461 times. (The first edition, published in September 2012 was downloaded 11,778 times.)

- The *Wheel of iPad Apps for Learners with Dyslexia/Reading and Writing Difficulties* was downloaded 23,780 times in 2014 – 15.

- Following the success of the wheel of apps for learners with dyslexia and reading difficulties, we developed an AAC app wheel which was officially launched in May 2014. It has been downloaded 12,573 times in 2014 – 15.

- The book and wheels are referenced on many websites in the UK and internationally.

- Additional iPad-related CPD courses were developed and delivered in CALL and/or in schools, and our full range of iPad-related courses now consists of:

    o Introduction to iPads for pupils with ASN
    o iPad accessibility features
    o iPads for learners with dyslexia
    o iPads for learners with visual impairment
    o iPads for learners with ASD
    o iPads for AAC: Picture apps to support early level communication
    o iPads for AAC: Apps from Symbols to Text
    o Creativity and beyond with an iPad
    o Engaging the disengaged – using iPads creatively
    o iTunes U, iBooks and iBooks Author

- CALL become an Apple Regional Training Centre in May 2014 and participated and contributed to UK conferences in June and December 2014.
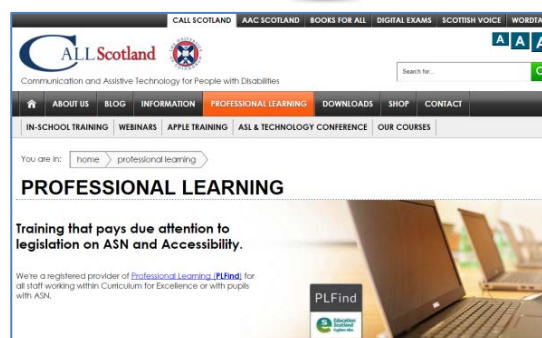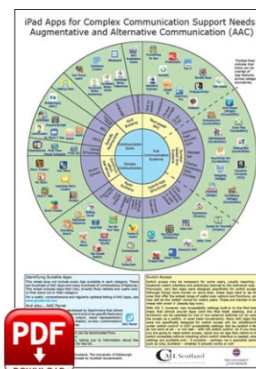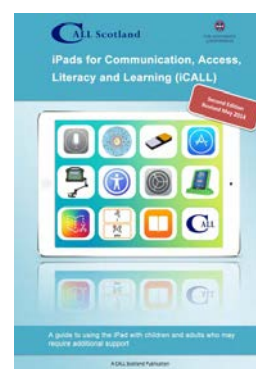
11. 'A Right to Speak' AAC Online Learning

Funded by: Scottish Government (via NHS Education for Scotland (NES))

OUTCOMES

The suite of AAC online learning modules was launched on CALL's new AAC Scotland website (www.aacscotland.org.uk/) in September 2014.

The modules cover 5 areas:

- Module 1 – Communication in Everyday Life (Introduction)

- Module 2 – Communication Support Needs

- Module 3 – Augmentative and Alternative Communication

- Module 4 – Helping to Make Communication Work

- Module 5 – Inclusive Communication

and are available in two versions:

(1) interactive version - highly visually interesting, interactive (mouse/tablet), with optional audio (for users who my experience barriers to literacy).
(2) text version for users with blindness or visual impairment.

The modules can be viewed one by one as 'stand-alones', or in sequence. All five modules are at an introductory level, and highly accessible to people without any previous specialised knowledge of communication disability, or of communication aids.

Each module takes about 5-10 minutes to view – or longer if you want to explore the many links and resources – and finishes with a 'Test your Knowledge' quiz, and a printable personalised certificate.

These Modules should be useful for students in a variety of disciplines e.g. therapy, education, nursing, medicine, social care, nursery nursing etc., and for staff training (in education, health and social care professions, voluntary sector, public and commercial services).

The modules will fit well as a more specific 'sequel' to more general 'disability awareness' training, and/or as an introductory 'starter' to more specialised studies in communication and social care.

The Modules are linked to the IPAACKS framework: each Module shows the specific 'Core Values and Commitments' and 'AAC specific knowledge and skills' that are particularly relevant to that module topic. They will therefore be a helpful tool for services, teams or individuals that wish to 'self-audit' and to develop best practice, and ensure positive outcomes for people who use AAC.

Sally and Craig have presented at several conferences and events and the resources have been well received; there were 15,363 visits to the site in 2014-15.

In December, we received additional funding from NES to develop additional materials, using the same format, on the topic of *AAC in Education*. Sally, with Debbie Jans from KeyComm and colleagues in CALL and ACiP:S, is endeavouring to condense her huge wealth and experience into this resource, which will be completed in 2015-16.

12. GLOSSARY

AAC	Augmentative and alternative communication
ACiP:S	Augmentative Communication in Practice: Scotland
ADES	Association of Directors of Education
ASLO	Association of Support for Learning Officers
ASN	Additional Support Needs
ASPEP	Association of Scottish Principal Educational Psychologists
AT	Assistive Technology
B4A	Books for All
BECTA	British Educational Computing and Technology Agency
BETT	British Education and Training Technology Exhibition
CALL	Communication, Access, Literacy and Learning
CfE	Curriculum for Excellence
CFS	Communication Forum Scotland
CLA	Copyright Licensing Agency
CM	Communication Matters
CPD	Continuing Professional Development
ES	Education Scotland
FACCT	Fife Assessment Centre for Communication through Technology
FE	Further Education
GASS	Grant Aided Special Schools
HE	Higher Education
HMIe	HM Inspectorate of Education (now part of Education Scotland)
HI	hearing impairment
ICT	Information and Communication Technology
ICTSLS	ICT Support for Learning Scotland
JISC	Joint Information Systems Committee (in FE/HE)
KeyComm	Edinburgh & Lothians AAC service
LA	Local authority
LTS	Learning and Teaching Scotland (now part of Education Scotland)
MH/MHIE	Moray House/Moray House Institute of Education
NAACE	[not an acronym] ICT association for education professionals (UK)
PL	Professional Learning (previously referred to as CPD)
QMUC	Queen Margaret University College
RCSLT	Royal College of Speech and Language Therapists
RNIB	Royal National Institute for the Blind
RSC	Regional Support Centre
SCRAN	Scottish Cultural Resource (charity and online resource base)
SCTCI	Scottish Centre for Technology for the Communication Impaired
SG	Scottish Government
SICTDG	Scottish ICT Development Group
SIG	Special Interest Group
SLA	service level agreement
SLF	Scottish Learning Festival (LTS run event every September)
SocITM	Society of IT Managers
SQA	Scottish Qualifications Authority
SSC	Scottish Sensory Centre

TASSCC (Aberdeen)	Technological Assessment and Support Service for Children and the Curriculum
UoE	University of Edinburgh
VI	visual impairment
VIP	visually impaired persons
VQ	Victoria Quay

Communication, Access, Literacy and Learning

The Moray House School of Education

The University of Edinburgh

Paterson's Land, Holyrood Road

Edinburgh EH8 8AQ

www.callscotland.org.uk