Evaluation of the Communication Aids Project (CAP)

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Acknowledgements

Glossary of terms

AAC	Augmentative and Alternative Communication
BECTA	British Educational and Communications Technology Agency
CAP	Communication Aid Project
DfES	Department for Education and Skills
ICT	Information and Communication Technology
OT	Occupational Therapist
SENCo	Special Educational Needs Co-ordinator
SLT	Speech and Language Therapist
VOCA	Voice Output Communication Aid

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Executive Summary

Introduction

The Communication Aids Project (CAP) aims 'to help pupils who have communication difficulties by providing technology to help them access the curriculum and interact with others and support their transition to post-school provision' (http://cap.becta.org.uk). The Department for Education and Skills commissioned a team of researchers at University College London and the University of York to carry out an evaluation of CAP to look at the impact, processes and costs of CAP.

Key Findings

1. Parents, education staff and speech and language therapists acknowledge that if funding from CAP had not been available, many of the children might not have been able to receive communication aids at all. Parents reported strong positive views concerning the provision of a communication aid for their child, although, in the before and after interviews no notable positive changes to quality of life measures were noted.

2. Children who had received communication aids from CAP reported positive changes in their functional abilities and quality of life. For example, some of the children reported a decrease in feelings of embarrassment, frustration, and being treated like a baby.

3. Although the number of applications made to CAP varies between LEAs (in line with their populations) there are particular areas of the country with exceptionally low levels of referrals. The evaluation found that the time taken from application to CAP for a communication aid to provision of that aid varies considerably, with up to a fifth of applications remaining incomplete after 12 months.

4. Almost all the children for whom an application is made have a statement of Special Educational Needs (SEN) and nearly a half of applications (42%) are for children in special schools. Four out of every ten children need help only with written communication. The most frequently mentioned disability is Cerebral Palsy.

5. In terms of applications made to CAP, there is evidence that over time people applying to CAP for funding for communication aids for children are demonstrating improved knowledge and skills in completing the application forms. However, where applications are not led by a speech and language therapist (SLT) or a specialist teacher there is a tendency to see procedures as overcomplicated or unclear.

6. Although multi-professional team assessments were complex and timeconsuming to arrange, parents and professionals felt that the assessments were very professional and of a high quality. Teachers also reported that they gained a great deal from being involved in the assessment process and the subsequent discussions.

7. The exploratory study of costs associated with CAP and the service use of the children in the sample showed that the cost of CAP varied considerably across the 6 CAP centres, ranging from £2,298 to £8,978 per child. The average cost per child was £3,790. However, these findings need to be interpreted cautiously based on the exploratory nature of the analysis.

Background

CAP manages a process of referral, assessment and provision of additional equipment and technology for pupils in England who have significant communication difficulties.

CAP has been operational since April 2002 and is managed for the DfES by the British Educational and Communications Technology Agency (BECTA). It was established initially through funds made available by Treasury's Capital Modernisation Fund. A grant of £10m was awarded over three years ending March 2004 (£1.5m, £3.5m, £5m respectively). Further funding was secured from the DfES to extend the project until March 2006. CAP, therefore, represents a significant initiative in the provision of Information and Communications Technology (ICT) to children with disabilities in England. CAP should be viewed as offering 'value-added' funding which supplements but does not replace the English Local Education Authority (LEA) funding for the provision of aids.

CAP has at its centre BECTA and the six CAP Centres: Abilitynet, ACE North, ACE Oxford, Deaf Children's Communication Aids Project (DCCAP), London CAP and SCOPE. The CAP centres have either a regional or national remit. CAP has built on existing skills and knowledge in specialist centres for assessing children for the provision of communication aids.

CAP acknowledges that 'Communication difficulties may be the primary problem for a pupil (a severe hearing impairment, for example) or form part of a more complex picture (such as where a child has severe cerebral palsy and multiple learning difficulties)'. The CAP initiative seeks to give support to pupils who have difficulty in:

- 'understanding language

- communicating verbally • using written communication'.

The Evaluation

The aim of the evaluation, which took place from July 2003 to April 2004, was to evaluate the impact of CAP on children receiving communication aids, to evaluate the process of the CAP strategy of delivery and to explore the cost of the CAP service.

The evaluation involved several elements:

- Analysis of the CAP database to explore national patterns of referral to and provision by CAP.

- Data collection from staff at BECTA and the CAP Centres, local CAP contacts and LEAs. Methods used for data collection included semi-structured face-toface interviews, telephone interviews and postal questionnaires.

- Individual Child Case Studies: an important part of this evaluation was to capture the voice of the children associated with CAP. 18 of the 30 case studies consisted of interview with children before and after receiving their communication aid and the remaining 12 case studies focused on children who were using their communication aid at a time of transition (e.g. from primary to secondary school).

- As well as interviews with the children (using an innovative methodology which enable the researchers to capture the views of non-verbal children), the case studies included semi-structured telephone interviews with their parents/carers, education staff and speech & language therapists (SLTs).

- Service use and costs: an exploratory cost analysis was conducted to estimate the cost per child of the CAP service. Additionally, exploratory information was collected on the total package of services used by some of the children from the sample of case studies (the transition sample) in order to explore the contribution of different sectors towards the total package of care that they received.

Detailed Findings and Recommendations

Application, assessment and provision

It is acknowledged that CAP centres have invested significant energies in supporting applicants, CAP assessors and LEAs so that they are able to make informed applications to CAP. However, the evaluation did find that there were some issues within the application, assessment and provision processes that require some attention. Analysis of the database found that around a quarter of applications to CAP are rejected (although the database does not hold information about the reasons for this) and that of rejected applications many were lead by SENCOs, parents, learning support assistants and other school staff. Professionals with the least number of rejections were deputy heads, and SLTs. SLTs who were interviewed felt that the forms could be more 'user-friendly' with more help offered for first-time users.

> **Recommendation**
> Information about why applications are refused needs to be collected in a systematic way.

Analysis of the database showed that the time taken from the application to CAP to the provision of an aid varies considerably. Interviews with parents show that they had mixed feelings with regard to the timescale of the process, especially about the time between application and assessment. Evidence from interviews with CAP assessors highlighted one of the reasons why there may be a delay in providing the aids. This may lie in the time it takes to collect signatures to finalise the assessment report. Parents felt generally that more information on the process would be useful, many found it difficult not knowing whom to contact with queries or problems.

> **Recommendation**
> In order to ensure that there is a short-time period between assessment and arrival of the aid, new ways of ensuring that signatures for individual assessment forms are collected as soon as possible need to be explored.

> **Recommendation**
> Further information on how an application is progressing would enable parents and professionals to track the process and reduce their stress. It may also reduce the number of phone calls made to CAP about the progress of an application.

> **Recommendation**
> The identification of a key person to contact at a local level if unsure about an aspect of the CAP process would be an advantage for parents. This person could be identified at the time of writing the assessment report.

Service use and cost

The information reported on service use and costs needs to be interpreted very cautiously and further research should be conducted in order to obtain more internally and externally valid results. The exploratory service use and cost analysis showed that costs of CAP per individual child varied greatly between centres. Although it was not in the remit of the study to explore this in great detail, a number of factors emerged which may impact on costs.

- Cost of the assessment: different centres have different approaches to assessment and often cater for children with different needs. Costs may also vary according to the type of service and intervention supplied.

- Specialist centres versus general providers: centres providing communication aids to narrow target groups with specific needs tended to cost more than those who provided a service to a broad range of clients.

- New versus established centres: some centres were new and incurred considerable set-up costs. Alongside this, there are likely to be substantial costs in marketing the service, tapping into unmet demand and enabling potential users to gain access to provision.

Recommendation
An analysis of the CAP service costs should be carried out when the service has been running for a longer period so that start-up costs are spread over a longer time horizon.

Impact of the communication aids

Children's views

'Before and after'

The children interviewed in the before and after interviews generally reported reductions to the problems that they experienced across a range of indicators. For example, fewer children reported feeling embarrassed, frustrated, feeling that they were treated like a baby or that they normally needed lots of help. The presentation of individual case studies in the report explores these impacts in more detail. For example, when Kevin was first interviewed he had relatively high expectations about the impact that his DynaWrite would have on his ability to talk in front of the class, to tell news and in asking questions. In his second interview he reported that all these issues had indeed become easier for him. He also reported that answering questions in class was less of a problem. Previously he had said that this took a lot of effort and that it made him feel frustrated and that these were big problems for him.

Alexander had rather more mixed expectations of his communication aid (a notebook computer and specialist software). He thought that spelling was difficult at his first interview but did not expect this to change once he was using the aid. He also thought that punctuation was a difficult issue for him but that this would become easier. When interviewed for the second time he reported that these 2 issues (as well as writing and handwriting) had become easier for him. With regard to spelling, although he identified a decrease in feeling that others do it for him or that he needs help, he reported no change to feelings of embarrassment and frustration or that he was treated as if he were stupid.

'Transition'
A move between areas within school for example, infant to junior, primary to secondary or a move from one school to another can be a stressful time for children. This can be even more challenging if a child cannot communicate easily with peers. In transition between the primary and secondary departments of his special school David has benefited from the provision and use of a communication aid. He felt that the communication aid helped him by giving him his own voice when making new friends. He also identified quality of life issues such as being able to express his ideas, making choices and taking his turn in a conversation, as positive outcomes of having a communication aid.

In the move to a post 16-education department Muhammad reported that his communication aid had been useful in meetings; in talking to new people and in making new friends. When the issue of making new friends was considered in more detail he rated the ability to be able to take his turn in a conversation; express his

own ideas and say what he was thinking as strong positive outcomes of the provision of his CAP funded communication aid.

Parents' and Professionals' views

The majority of parents interviewed agreed that their child enjoyed using the communication aid (24 parents agreed or strongly agreed) and that the child found the aid easy to use (22 parents agreed or strongly agreed). However, parents interviewed before and after their child had received the communication aid did not report any marked differences in quality of life indicators such as the child enjoying school more or being more involved with family life. There were, however, individual accounts of positive social impacts of having the aid, for example joining a chess club at school. In terms of children's involvement at school many parents reported improvements.

Teachers and SLTs who took part in the 'before and after' interviews did not report any marked changes in the indicators of the children's life at school. However, there was a slight increase in the number of teachers who agreed that the child found it easier to produce written work and that written work was neat and easy to read. The majority of education staff interviewed agreed that children enjoyed using their aids although their feelings were more mixed about whether or not the children found the aids easy to use. Individually, many education staff reported that the aid had had a positive impact on the children's participation in learning experiences.

The perceived benefits of the aid outside school that many parents report have raised expectations regarding the use of the aid within the classroom. This has introduced new challenges for classroom staff seeking to manage parents' expectations and integrate use of the aid into classroom work.

Teachers and SLTs interviewed in the case studies for children using the communication aid in transition reported positive transition experiences for the children. This was especially marked when the move was to a special school. There was some concern that if children moved to a school without high levels of support for the children themselves and IT support for their aids, the transition was not quite so smooth. For several of the children in transition between or within schools there were new challenges in using the aid. For example, because of the increased number of staff, the move from primary to secondary school raised challenges in managing information about the use of the aid. There were also issues about limited portability and the security of communication aids in school. Some parents also reported that the aid was being used less frequently and less effectively in the new settings and highlighted the need for better training for those working with children with a communication aid who have just moved schools.

> **Recommendation:**
> When applications are made to CAP for a child in transition, evidence should be provided to show that staff from the new setting are aware *of* and involved *in* the process.

> **Recommendation**
> Where children are identified as 'in transition', initial training for staff in the current and the new environment should be shared.

Recommendations for future research

This evaluation study took place over a short period of time and further valuable information about the use of communication aids in school could be collected if the children who were interviewed twice were interviewed again in 12 months.

The CAP database has brought together valuable information not previously gathered in one place. Further analyse of the CAP database would be advisable after the planned changes have been made in the criteria for rejection of applications and the possible further expansion of the database to include categorical data on disability.

Conclusion

CAP has provided a very good service for a number of children in England. The staff at BECTA, the CAP centres and the CAP contacts have worked extremely hard to provide such an innovative service. The children and parents interviewed in this evaluation study have been very positive about the impact that a CAP funded communication aid has had on their lives.

The findings from this evaluation study indicate areas of great success but also areas that need to be developed. The recommendations have been made so that CAP can go from strength to strength.

1.0 Introduction

The Communication Aids Project (CAP) aims '*to help pupils who have communication difficulties by providing technology to help them access the curriculum and interact with others and support their transition to post-school provision*' (http://cap.becta.org.uk). CAP aspires to achieve this aim by managing a process of referral, assessment and provision of additional equipment and technology for pupils who have significant communication difficulties. CAP should be viewed as offering 'value-added' funding that supplements but does not replace the English Local Education Authority (LEA) funding for the provision of aids.

CAP acknowledges that 'Communication difficulties may be the primary problem for a pupil (a severe hearing impairment, for example) or form part of a more complex picture (such as where a child has severe cerebral palsy and multiple learning difficulties). Some difficulties may be temporary - such as delayed speech in a child who is otherwise developing normally - whilst others impair the child's ability to learn or carry out physical activities. The CAP initiative seeks to give support to pupils who have difficulty in:

- understanding language

- communicating verbally

- using written communication'.

[Source: CAP Website]

CAP has been operational since April 2002 and is managed for the DfES by the British Educational and Communications Technology Agency (BECTA). It was established initially through funds made available by the Treasury's Capital Modernisation Fund. A grant of £10m was awarded over three years ending March 2004 (£1.5m, £3.5m, £5m respectively). Further funding was secured from the DfES to extend the project until March 2006. CAP, therefore, represents a significant initiative in the provision of Information and Communications Technology (ICT) to children with disabilities in England.

The Department of Human Communication Science, University College, London in collaboration with the Centre for Health Economics, University of York were commissioned by the Department for Education and Skills (DfES) to undertake an evaluation of the Communication Aids Project (CAP). The study aims to evaluate the impact of CAP on children receiving communication aids, the process of the CAP strategy of delivery and to explore the cost of the CAP service

1.1 Background

Many children with communication difficulties face significant barriers to participation in learning and social interaction in school. This is particularly true for children who have little or no functional speech and consequently have significant difficulties in initiating and sustaining interaction (Clarke and Kirton 2003, McConachie, Clarke, Wood, Price and Grove 1999). These children have limited opportunities for the development of self-advocacy and are at risk of social exclusion. Similarly, children who experience difficulties in communicating their ideas in a written form such as those who are dyslexic (Snowling and Stackhouse 1996) may find that their abilities are underestimated and they do not achieve their full potential.

Developments in communication aid technology and the expansion of commercially available equipment, such as Personal Computer (PC) and Windows Compact Edition (CE) based speech output communication software, represent new and important responses to the needs and expectations of people with disabilities. However, despite the recognition of the powerful benefits of ICT for children with communication difficulties the opportunities presented by ICT have been underutilised (Jolleff, McConachie, Winyard, Jones, Wisbeach and Clayton 1992). This has been in part due to the inequality in access to services (Clarke, Price and Jolleff, 2001) and the unclear and fragmented funding arrangements between education, health and social services (Chinner, Hazell, Skinner, Thomas and Williams 2001).

Traditionally, it has been necessary for families and professionals to explore funding opportunities through education, health, social services and charities. Where some funding sources have been made available, they may not have been obviously accessible, with professionals and families being required to research a range of options. Such complexity in funding arrangements has been reflected in a recent survey of funding sources for VOCAs (Scope 2001). This work identified the relative proportion of funding as: 26% funded by health, 17% funded by education and 24% funded by charities with joint funding arrangements being rare. Importantly, then, it has been recognised that the unclear and fragmented funding arrangement between education, health and social services is wasteful of resources and denies children the appropriate equipment and support (House of Commons Health Committee Report 1997).

Despite recognition of the valuable role played by ACE (Aiding Communication in Education) Centres and Communication Aid Centres in the provision of assessment, training and information to local services (DfEE / DoH 2000) the provision in communication aids prior to CAP was not equitable or comprehensive and this picture is reflected in much of Europe (Hoogerwerf, Lysley and Clarke 2002).

1.2 The CAP model of provision

CAP has at its centre BECTA and the six CAP Centres: Abilitynet, ACE North, ACE Oxford, Deaf Children's Communication Aids Project (DCCAP), London CAP and SCOPE. The centres have either a regional or national remit.

BECTA co-ordinates the receipt and screening of applications. Accepted applications are distributed from BECTA to the CAP centre which best reflects the needs of the child and/or the child's geographical location. Subsequently, the CAP centre may lead and co-ordinate the assessment process directly with the child's parent(s)/carer(s); school staff; relevant professionals from health and social services and the LEA. Alternatively, staff at the centre may ask a local CAP contact or CAP assessor team to lead the assessment. When a child has been assessed the report is sent back to BECTA with details of the communication aid(s) being requested. The report will also normally contain information about the support being provided by the school and the LEA.

CAP has built on existing skills and knowledge in specialist centres for assessing children for the provision of communication aids. For example, in addition to their typical practice ACE North and ACE Oxford have developed profiles as CAP Centres supporting the needs of young people with physical and communication difficulties; Abilitynet has expanded its work in educational contexts. SCOPE's remit within CAP has been the support of young children moving into education and young people with profound and multiple learning difficulties. Under CAP the Augmentative

Communication Service of Great Ormond Street Hospital for Children and the education based Centre for Micro-Assisted Communication (CENMAC) work collaboratively as London CAP. The creation of DDCAP represents collaboration between Deaf@x and the British Association of Teachers of the Deaf (BATOD). The work of the 6 CAP centres is described in more detail in the Appendix A.

CAP contacts/ assessors are individuals or groups who wish to become involved in assessing and supporting children who need communication aids. BECTA advertises for such contacts on its web site and the staff in the CAP centres have a remit to develop and support local CAP contacts/assessors.

1.3 Aims and Objectives

The study aims to evaluate the impact of CAP on children receiving communication aids, the process of the CAP strategy of delivery and explore the cost of the CAP service.

The objectives for this study are to:
- evaluate the scope of CAP provision;
- explore the cost associated with CAP and service use by communication aid users
- evaluate CAP procedures at the levels of application to CAP, assessment, post assessment and delivery of communication aids
- investigate the collaboration between the professionals and parents who support children with communication aids;
- evaluate the impact of CAP on children who were helped by CAP

1.4 Organisation of the Report

The report has been organised to reflect the CAP process from application to assessment and delivery of the communication aid. The unique aspect of this report - the views of the children and parents about the impact of CAP on their lives is presented in **sections 8 and 9.**

Section 2 contains information about the methodology used in this study.

Section 3 describes the findings from a quantitative analysis of the CAP database.

Section 4 contains the findings from an exploratory analysis of service use and costs.

Section 5 focuses on the application procedure to CAP

Section 6 contains information about CAP assessments.

Section 7 explores CAP post assessment and the delivery of the communication aid

Section 8 presents the views of the children, parents and professionals about the impact of a CAP funded communication aid.

Section 9 includes the views of children, parents and professionals about the impact of a CAP communication aid during transition.

Section 10 provides the conclusion, a summary of key points and the recommendations.
The appendices include information on the methodology for the child interviews, CAP application and assessment forms and application rates to CAP from LEAs.

2.0 Methodology

The overall aim of this study was to evaluate the impact of CAP on children receiving communication aids, the process of the CAP strategy of delivery and to explore the cost of the CAP service.

When considering the impact of CAP the focus was on those children who had been helped by CAP and the affect CAP had on the quality of their lives including a consideration of their social inclusion in school and at home.

In order to describe the impact of the CAP model of provision and to understand its impact quantitative and qualitative data were gathered over two phases.

- In Phase One the patterns and processes of referral and provision of communication aids by the CAP were analysed and the characteristics and distribution of referral from BECTA to all CAP centres were provided.

- In Phase Two the impact of CAP at the level of the individual child and their schools was analysed. The analysis of resource use costs spanned Phase One and Two.

2.1　Phase One – Patterns and processes of referral and provision of aids

Analysis of the CAP database

BECTA has a database of children who apply to CAP. The database holds information on the characteristics and needs of the children and following assessment the information from the assessment forms is added to the database.

The analysis of the database required close collaboration with BECTA and the CAP team. BECTA supplied the research team with anonymous records for the analysis of the data and managed the procedures for gaining informed consent from individuals for participation in further parts of the evaluation. They wrote to all the parents on the database to ask for their permission for the research team to contact them. By the end of August 2003 the database had 2685 records and the parents of 1139 children had given permission for participation in research. This was a response rate of 42%.

The analysis of national patterns of referral to and provision by CAP has been drawn from data held centrally at BECTA in Coventry. The first phase of the analysis was based on data covering the operation of CAP from its inception in January 2002 until the end of August 2003. In February 2004 BECTA supplied further data, extending coverage up to the end of January 2004. Staff at BECTA had also done some work on the whole database, adding information to records received before August 2003. Analyses contained in this final report are based on the final dataset.

Data held at BECTA

The formats used for collecting data were designed while CAP was in the early stages of operation. The team at BECTA spent a minimum of their funds on systems in order to have more available for provision of aids. Since August 2003 staff at BECTA have been refining the system to produce an integrated data recording system from first application through to completion, including data on the cost of equipment and training.

Data supplied at February 2004

Up to the end of January 2004 the Application database contained 3060 records, based on information entered from the initial Application Form. Additional fields were added for the following critical milestones:

- receipt of application
- entry to database
- referral to centre or refusal/withdrawal
- completion (i.e. delivery of the recommended aid(s) to the pupil).

A separate Assessment database of 1641 records contained more detailed information provided when the Assessment form for each child had been completed.

The details of the analysis can be seen in chapter three. The information in the database was explored in order to identify:

1) Geographical variation in patterns of referrals

2) Distribution of accepted referrals to the 6 CAP centres, number of referrals refused or withdrawn

3) Change in rate of referral over the course of the project

4) Time taken from acceptance of referral to provision of aid

5) Age of pupils

6) Educational placement of children

7) Type of need and disability

Interviews with staff at CAP Centres

Semi-structured, face-to-face interviews were carried out with two staff from five of the CAP centres and three staff from one CAP centre (n= 13). Qualitative data were gathered concerning: the functioning of the centre in relation to CAP; the referral process; the management role of BECTA; the ways in which assessments are conducted, and how local assessment teams have been developed

Survey of LEAs and local CAP contacts

A sample of 30 LEAs were contacted and asked to complete a short questionnaire. In order to maximise the possible return rate a web-based facility for completing the questionnaire on-line was available. The LEAs were chosen from a list ranked according to the frequency of referral rates to CAP. Where a number of LEAs had made the same number of referrals only one LEA was chosen. The questionnaires were sent to the sample of 30 LEAs identified.

Only 14 completed questionnaires were returned, a response rate of 47%.

Semi-structured telephone interviews were also carried out with local CAP contacts whose names had been given to the research team by the staff at the CAP centres. The interviews explored: the ways in which the contacts were involved in the assessment process; how local professionals worked together to support communication aid users, and whether CAP has had any impact on multi-agency working. The semi-structured telephone interviews were carried out with 10 CAP contacts. Two other CAP contacts provided information by email.

2.2　Phase Two – Individual case studies at the level of the child and school

CAP was conceived of and operates as a school age project so the focus was on schools when evaluating the CAP processes and the impact of communication aids on children. A school setting provides a suitable location for accessing the views of the different stakeholders and evaluating the ways in which they interact with each other. Furthermore, the impact of CAP in a diverse range of dimensions, including, for example, changes in the child's functional status and quality of life, as well as satisfaction and cost may be appraised (DeRuyter 1997, Granlund and Blackstone 1999).

The impact of CAP was examined through 2 distinct sets of case studies. The first set was a sample of 18 children who were interviewed before or just as they received their communication aid (Time1 interviews). The same children took part in follow-up interviews at least 6 weeks after they had received their aid (Time 2 interviews). However, as 4 of the original sample had not received their aids at Time 2 only 14 Time 2 interviews were completed.

The second set of case studies was a sample of 12 children who would be using their aid at key transition points. It must be kept in mind that the sample size was small and therefore the results cannot be seen as conclusive but they do provide a unique opportunity to hear the views of children using the communication aids.

Case Study Participants

Children

As detailed above, based on knowledge of children referred to CAP, a sample of 30 children (whose parents had consented to take part in the research) was selected from the 6 CAP centres (18 for the 'before and after' case studies and 12 for the transition case studies). In this way the case studies were representative of the profile of children supported by CAP. The research team were also able to explore the views of the children and their parents on the impact of CAP.

Inclusion criteria reflected the demands of the tasks involved rather than measures of impairment. Therefore the criteria for the young people being included were that they:
•   had been assessed and were due to receive their communication aid before December 2003, or who had only recently received their communication aid in the period September to December 2003 or were within a period of transition;
- were able to understand and comment on their own performance in communication based activities / tasks;
- were able to recall the CAP assessment and anticipate the provision of a new communication aid;
- were able to predict future performance / reflect on past performance;
- have been consistently in school during the term September–December 2003;
- have families who were not in dispute with the LEA or the school at the time of the interviews;
- were aged 6 years or above;
- were able to see the pictures used in the interview; • did not have a rapidly advancing progressive condition.

Eighteen children were interviewed before they received their communication aid (T1 interviews). But only 14 took part in follow-up interviews because 3 children had not

yet received aids their aids and one had received an aid but it was not working. Tables 1 shows the profile of the children interviewed at T1 and T2.

Table 1 Profile of children interviewed at Time1 (T1) and at Time 2 (T2)

Child	Age in years and months at T1	Sex	Diagnosis (based on information in the CAP database)	Location	School	Aid	Access	Mobility	Weeks between T1 - T2
1	7.06	F	Cerebral Palsy & GDD	Surrey	Special	VOCA	Direct	Amb't	8
2	7.10	M	Trysomy 8	Cheshire	Special &M'stm	VOCA	Direct	Amb't	6
3	10.01	M	Cerebral Palsy	Telford	M'stm	VOCA	Direct	WCh	6
4	10.11	M	WDS	Essex	Special	VOCA	Direct	Amb't	10
5	11.07	M	SLD & Dyspraxia	Hereford	Special	VOCA	Direct	Amb't	6
6	11.09	M	Dyslexia	Plymouth	M'stm	Laptop	Direct	Amb't	6
7	12	F	Cerebral Palsy	Durham	M'stm	Laptop	Direct	WCh	7
8	12.03	M	PBSNHL & Cerebral Palsy	Newcastle	M'stm	VOCA & Laptop	Direct	Amb't	6
9	12.03	F	Cerebral Palsy	Halifax	Special	VOCA	Direct	WCh	6
10	12.11	F	PBSNHL	Hampshire	M'stm	Laptop	Direct	Amb't	6
11	13	M	Specific learning difficulty	Norfolk	M'stm	Laptop	Direct	Amb't	8
12	14.02	F	Cerebral Palsy	Kent	Special	VOCA	Direct	WCh	6
13	15.07	M	Cerebral Palsy	Gloucester	Special	VOCA	InD	WCh	6
14	16.10	M	Cerebral Palsy	Stanmore	M'stm	VOCA	InD	WCh	10
15*	12.10	M	WDS	Margate	Special	VOCA	Direct	Amb't	n.a
16*	13	M	Arthrogryposis, dyslexia	Cheshire	M'stm	Recording	Direct	WCh	n.a
17~	14.04	F	Spinal Muscular Atrophy	Kent	M'stm	Recording	Direct	WCh	n.a

18*	15.05	M	SaL impairment	Hampshire	Special	VOCA	Direct	Amb't	n.a

GDD	Global developmental delay
PBSNHL	Profound bilateral sensori-neural hearing loss
SLD	Severe learning difficulties
WDS	Worster Drought Syndrome
SaL	Speech and Language
M'stm	Mainstream School
VOCA	Voice Output Communication Aid
D	Direct (finger, eye or light beam pointing)
InD	Indirect (switch or partner scanning)
Amb't	Ambulant
WCh	Wheelchair
*	Three children did not receive their communication aid within the time period available for this evaluation. Consequently, second interviews were not conducted.
~	This child had received her aid but it was not functional

As can be seen in table 1 the children ranged in age from 7.06 years to 16.10 years, median 12.02 years. There was a wide geographic spread for example, from Newcastle to Hampshire, and the children attended mainstream and special schools. Table 2 shows the profile of the children in the transition group.

Table 2 Profile of children interviewed at transition

Child	Age in years and months	Sex	Diagnosis (based on information in the CAP database)	Location	Aid	Access Method	Mobility	Old Location	New location
19	8.00	M	PBSNHL	Brighton	Laptop	D	Amb't	Infant Mainstream	Primary Mainstream
20	11.08	M	Cerebral Palsy	Bath	VOCA	D	WCh	Special Primary	Special Secondary (part-time)
21	11.08	M	GDD	Oxfordshire	VOCA	D	Amb't	Special Primary	Secondary Special
22	11.09	M	Cerebral Palsy	Newcastle	VOCA	D	WCh	Special Primary	Secondary Special
23	11.11	M	None given	Basingstoke	Laptop	D	Amb't	Primary Mainstream	Secondary Mainstream
24	11.07	M	Dyslexia & oculomotor difficulties	Tonbridge	Laptop	D	Amb't	Primary Mainstream	Secondary Mainstream
25	11.08	M	Dyslexia	Durham	Laptop	D	Amb't	Primary Mainstream	Secondary Mainstream
26	11.09	M	Memory difficulties	Basingstoke	Laptop	D	Amb't	Primary Mainstream	Secondary Mainstream

27	12.01	F	Cerebral Palsy	Hampshire	VOCA	D	WCh	Special Primary	Secondary Special
28	16.11	F	Joubert's Syndrome	Exeter	Laptop	D	Amb't	Special School	Special College
29	17.00	M	Cerebral Palsy	London	VOCA	InD	WCh	Secondary special	6th form Special
30	17.01	M	None given	Hampshire	VOCA	D	Amb't	Secondary special	Special College

GDD	Global developmental delay
PBSNHL	Profound bilateral sensori-neural hearing loss
SLD	Severe learning difficulties
WDS	Worster Drought Syndrome
SaL	Speech and Language
M'stm	Mainstream School
VOCA	Voice Output Communication Aid
D	Direct (finger, eye or light beam pointing)
InD	Indirect (switch or partner scanning)
Amb't	Ambulant
WCh	Wheelchair

Within the transition cohort, the children ranged in age from 8.00 years to 17.01 years and there was a good spread across LEAs and types of school.

Parents and professionals

The 'before and after' (T1 T2) case studies and transition case studies incorporated the views of each child's parent; speech and language therapist (SLT) and a member of the education staff from the school that the child attended, as table 3 shows.

Table 3 parents and					Number of interviews with professionals
	T1	**T2**	**Transition**	**Total**	
Parent	18	14*	12	44	
Teacher	13^	8	12	33	
SLT	8	6	5	19	
Total	39	28	27	96	

^Teachers not interviewed at T1: 1 was undergoing an Ofsted inspection, 1 did not reply to phone messages/email; 1 on long term sick leave; 2 were in special schools where it was suggested that contact was made with the SLT and no teacher was available.
* Three children had not received their communication aid and one did not have a functional aid within the time period available for this evaluation. Consequently, T2 interviews were not conducted with these parents or teachers.

A further 2 teachers were not interviewed at T2 as although the children had the aid it was not being used at school so the teachers did not feel it was appropriate to be interviewed 'post' aid.

Telephone interviews were recorded using ^{CTI}Pulsar PC telephone and room recorder.

Interview measures

For children of the T1 T2 cohort the impact of CAP was measured in the dimensions of functional status (functional status refers to the way in which the children learn and communicate) and quality of life through one-to-one interview at two time points. Children in the transition cohort were interviewed on a one-to one basis on one occasion.

The innovative interview procedures that were devised allowed children with a range of communication difficulties to respond and express their views even if they were non-speaking.

The interview T1 T2 and transition procedures were designed to balance the practical constraints of this evaluation study including a requirement to: minimise the disruption of young people's schooling; minimise disruption to school; inform the research project quickly and reliably and engage young people in the process of research in a way that is meaningful for them. Interviews were developed on the principle that any young person could complete it without being required to speak. They also avoid interactive 'real-time' activities that will disadvantage children with physical disabilities and take into account the considerable variation in communicative and physical abilities of the target participants.

Time 1 and Time 2 interview with children

Using a computer programme running on a laptop, firstly, the young people were asked to identify a number of communication-focused activities that they recognised as relevant to their everyday experience in school. These were then located on two scales: firstly, one representing the degree of difficulty the young person experienced in conducting the activity, and secondly, a dimension representing how important that felt the activity was for them. Next, one activity was chosen to be examined in greater detail. Within the context of the chosen activity young people were asked to decide on the relevance of a range of quality of life (QoL) indicators to their own experience. Then, each item identified as relevant to their experience was located on a scale representing the degree of problem the issue represented. Finally, the young people were asked to consider their expectations about how the current difficult rating for communication focused activities and problem rating of QoL indicators might change in the short term. At the second interview the young people were asked to review the degree of difficulty associated with each activity and the level of problem associated with each chosen QoL indicator. Further information on the child interviews can be found in appendix B.

Time 1 and Time 2 interview with parents and professionals

Telephone interviews were conducted with parents and professionals. The themes of the T1 T2 interviews with parents included anticipated benefits or otherwise of the aid for their child and opinions concerning procedures within CAP. Post provision interviews explored how and to what extent the communication aid is used when participating in school life; areas of CAP they were most and least satisfied with and how they might improve the process.

Initial interviews with professionals concerned their experiences of the CAP process; anticipated use of the aid and expectations for the impact of the aid on their work with the child. Post-provision interviews focussed on the actual use of the aid and its impact on work at school.

Transition interview with children

This interview aimed to explore the value of CAP funded communication aids within the experience of transition. Transition refers to the points at which children transfer from one type of schooling to another. This might be a move from the infant to the junior part of the same school, a move from primary school to secondary school or a move from special to mainstream school. Transition also occurs when teenagers move from secondary school to Further Education Colleges.

First, young people were asked to identify a number of communication-focused activities that they recognised as relevant to their experience of transition. These chosen activities were divided into those in which the communication aid was used/available/relevant and those in which it was not. The activities in which the communication aid was used/available/ relevant were then located on two scales: one representing the degree of importance attached to the activity, and secondly, a dimension representing how valuable (useful) the communication aid had been. One activity rated as useful and one as useless were then explored in greater detail. Within the context of the activity in which the communication aid had proved valuable young people were asked to decide on the relevance of a range of quality of life (QoL) indicators to their own experience. Each item identified as relevant was then located on a scale representing the degree of feeling associated with this QoL indicator. This procedure was repeated for one activity in which aid was identified as lacking value (useless).

Transition interview with parents and professionals

Telephone interviews were conducted with parents and professionals. The main themes of the interviews with parents focused on background to the assessment; how their child had benefited or otherwise from aid provision within transition; impact of aid on processes of transition; differences between old and new setting in terms of support available and use of the aid and how they might improve the process.

Interviews with professionals concerned their experiences of the CAP process; use of the aid and the impact of the communication aid in the process of transition.

Procedures

All interviews with children were based on the following principles. Confidentiality is established between the interviewer and the child and the child is informed that the interviewer will keep some notes. The child is assured that there are no right or wrong answers. The interviewer demonstrates to the child how they can control the interview procedure. This includes letting them know how they can stop the interview at any time, decline to answer a particular question, inform the interviewer that don't have an opinion or don't understand the question. Each interviewee was asked to consider whether or not the findings from the interview should be shared with their parents and school staff.

2.3   Service use and costs

To cost CAP a simple, top-down approach to costing was undertaken. The total cost of the CAP service per centre (including BECTA overheads) was summed and divided by the number of children allocated to each CAP centre to produce an average (mean) cost per child for each CAP centre. It should be noted that the allocation included on-going applications rather than just completed applications. It is also important to remember that when looking at the costs that the sample size was small.

To collect cost of CAP information, BECTA and each of the six CAP centres were contacted. In order that costs for each CAP centre were constructed in the same way, costs were calculated on the basis of BECTA Service Level Agreements (SLAs) with the CAP centres for the financial years 2001/2 (start-up) to 2003/4. In order to maintain the anonymity of the centres the cost data are reported without reference to the particular centre to which they relate. The SLAs contain four main elements, that is the cost of the communication aid library and loan equipment (including hardware and software), assessment and training, administration and technical support and travel and subsistence. The administration and technical support element is defined as the cost that each centre incurs to administer pupil referrals which are passed onto them by BECTA. It also includes on-going support for equipment that was purchased to administer the project at each centre.

BECTA made an additional contribution to CAP including involvement in the management and marketing of the CAP project. Also, a number of individuals outside CAP were involved in the referral, application, assessment and training stages of CAP provision and these costs were then charged back to BECTA. All these costs relate to the CAP service and therefore they were included in the cost of CAP service. No personal costs incurred by the individuals and their families to access the CAP service were included in this study given the burden of data collection and the time constraints of the study. Besides travel and time expenses, it is possible that some families paid insurance premiums to cover the cost of any damage to their child's communication aid however, no information was obtained on this.

Cost of services additional to CAP

Postal questionnaires were sent to the parents of the twelve children in the study who were in the transition group in order to obtain information on services used by the children over the previous three months. The aim was to cost the package of services received by the children beyond the CAP service. Each child is likely to receive an umbrella of services and if more of one service is provided it might be that less of another service is provided therefore it was informative to look at the overall package of support utilised.

Data on the frequency and duration of contacts by the children with education, health, voluntary, social services and private sector services were collected and costed. The questionnaire was based on a service use questionnaire designed in a previous study (Byford et al, 1999) and adapted to include the types of services likely to be used by children with communication difficulties (see appendix F). Services were costed using unit cost information reported in a number of different publications (CIPFA, 2000, CIPFA, 2003; Netten & Curtis, 2003; British Medical Association, 2002). Costs were calculated as an average (mean) cost per child per week. Where data were missing due to incomplete responses, the average (mean) use of services by children for whom data were available was used. However, when looking at the costs one must remember that the sample size was small.

3.0 Analysis of CAP database

This analysis of national patterns of referral and provision through CAP has been drawn from data held centrally at BECTA in Coventry. The first phase of the analysis was based on data covering the operation of CAP from its inception in January 2002 until the end of August 2003. In February 2004 CAP supplied further data, extending coverage up to the end of January 2004. Staff at CAP had also done some work on the whole database, adding information to records received before August 2003. Analyses contained in this final report are based on the final dataset.

Data held at BECTA

The formats used for collecting data were designed while the CAP project was already in the early stages of operation. The team at BECTA spent a minimum of their funds on systems in order to have more available for provision of aids. Application and assessment data are held in a different file format from equipment ordering and supply data, with no easy link between the two systems. Since August 2003 staff at BECTA have been refining the process to produce an integrated data recording system from first application through to completion, including data on the cost of equipment and training. Following some delays, they hope to complete this in August 2004.

Data supplied at February 2004

Up to the end of January 2004 the **Application** database contained 3060 records, based on information entered from the initial Application Form. Additional fields were added for the following critical dates: receipt of application: entry to database; referral to centre or refusal/withdrawal; completion (i.e. delivery of the recommended aid(s) red to the pupil). A separate **Assessment** database of 1641 records contained information taken from the Assessment form.

Financial information was supplied in the form of Excel spreadsheets showing individual orders by supplier and Centre as well as summaries of expenditure by Centre per year.

Anonymised data was available for analysis from all 3060 applicants to CAP.

National patterns and processes of referral and provision The
following statistics have been drawn from the database.

1.   Geographical variation in patterns of referrals
2.   Distribution of accepted referrals to the 6 CAP centres, number of referrals refused or withdrawn
3.   Change in rate of referral over the course of the project
4.   Time taken from acceptance of referral to provision of aid
5.   Age of pupils
6.   Educational placement of children
7.   Type of need and disability

It had been intended to examine data on type of loan. However, data on this topic are sparse. The Assessment database does not contain complete details of the type of aids recommended. Numerous records simply show 'See report', indicating that the text is too large to be entered on the database. Thus the specific outcomes of the

referral process are excluded from analysis and possible variation in type of loan between areas and client groups cannot be observed. It may be useful to amend the recording process to allow simplified categorical entry of loan type.

3.1. Geographical variation in patterns of referrals

Applications have come from 147 LEAs in England, i.e. all LEAs except Rutland, City of London and the Isles of Scilly. In order to examine the coverage in relation to possible need, numbers of applications were considered as a proportion of individuals with Special Educational Needs (SEN). Table 4 shows DfES figures for total pupils, and pupils with SEN, within each LEA region in England (as at January 2003), as well as the number of CAP applications within each region. The number of CAP applications is also reported as a percentage of the SEN population in each region. In England as a whole the percentage of the SEN population applying to CAP is 0.22%. Regional variation is substantial. The highest proportion of applications was from the North East (0.36%) and South West (0.31%); the lowest from Outer London (0.14%) and East Midlands (0.17%).

Table 4   Application rates by region, based on population data* from Annual Schools Census, DfES, 2003.

	Total pupils in maintained primary, secondary and special schools	Total pupils with SEN	% of population with SEN	Total CAP applications	CAP referrals as % of SEN population
TOTAL FOR ENGLAND	7710944	1358096	18%	2990	0.22%
NORTH EAST	412536	73664	18%	268	0.36%
NORTH WEST	1115287	192065	17%	486	0.25%
YORKSHIRE AND THE HUMBER	822291	135499	16%	258	0.19%
EAST MIDLANDS	676248	113809	17%	189	0.17%
WEST MIDLANDS	878821	152187	17%	323	0.21%
EAST OF ENGLAND	847735	138119	16%	271	0.20%
ALL LONDON	1062776	211092	20%	354	0.17%
INNER LONDON	363786	81600	22%	174	0.21%
OUTER LONDON	698990	129492	19%	180	0.14%
SOUTH EAST	1170141	220830	19%	464	0.21%
SOUTH WEST	725109	120831	17%	377	0.31%

*DfES data based on school-age children educated in each LEA, excluding those who live in the LEA but are educated elsewhere.

As the 'LEA' field had not been completed in some of the records, the *edubase* website was used to establish which LEA covered the schools listed in the application. Of the total 3060 applications during this period, 70 applications either showed no obvious LEA or school involvement, or were from pupils outside England.

The table in appendix E gives detailed figures for applications from each LEA, revealing further substantial variation. The highest proportions of SEN populations are represented by the numbers of applications from South Tyneside (0.88%),

Salford (0.74%) and City of Bristol (0.74%), while lowest proportions (excluding Rutland, City of London, and Isles of Scilly) are represented by Bournemouth (0.03%), Medway (0.04%), and Redcar and Cleveland (0.04%).

Overall, considering the 147 LEAs from which referrals were received, there is a significant correlation between population size and number of CAP applications so that as population size increases so the number of CAP referrals increase. The level of correlation is broadly consistent across population measures (total pupils, total number of pupils with statements, total number of pupils with SEN but without statements, total number of pupils in special schools), with Pearson's r-values varying from .673 to .723 (all p-values <.001). However, there is no correlation between the *proportion* of children within each LEA identified as having SEN, and the number of CAP applications (r= -.153, p>0.05). Other proportional variables (e.g. proportion of pupils with statements, proportion of pupils with SEN but without statements, proportion of pupils in special schools) show similar r-values, indicating lack of correlation with number of CAP applications. Thus rates of referral to CAP across LEAs are influenced by population size, but appear to be unaffected by variation in systems for identification and support for SEN.

3.2 Distribution of accepted referrals to the 6 CAP centres, number of referrals refused and reasons for refusal

Although data up to the end of January 2004 were supplied, 1st October 2003 was used as the cut-off date for this analysis. CAP stopped processing new referrals during October 2003, a short-term moratorium designed to allow the large build-up of applications to be processed more efficiently. Thus the inclusion of October 2003 – January 2004 figures would risk distortion of the general pattern of distribution of applications. The total number of applications received and referred to centres or withdrawn/refused was 2787. The percentages of applications referred to Centres or Refused/Withdrawn from the start of the project up to 1st October 2003 are shown in Figure 1.

Figure 1 Allocation of applications
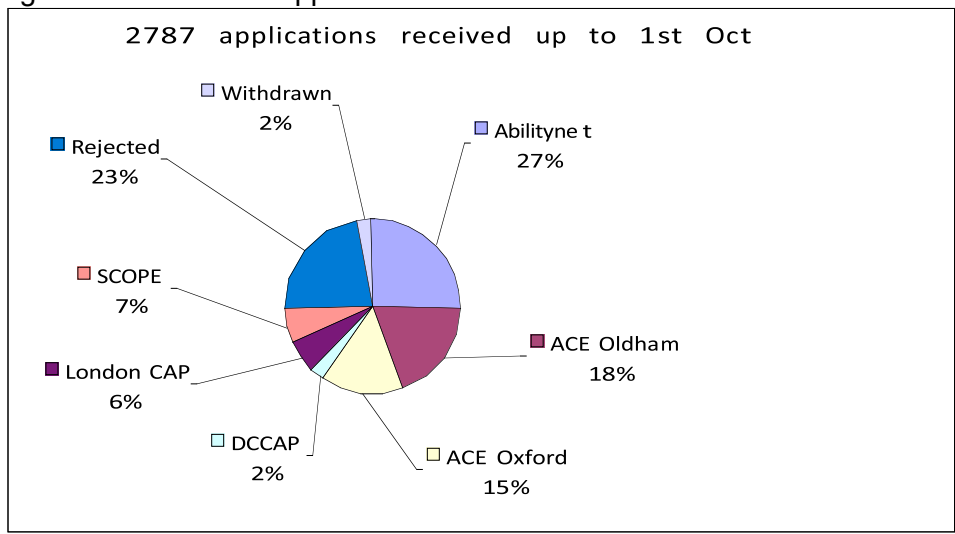
Receipt of applications is acknowledged by CAP in Coventry. An assessor at CAP then reviews each application. The assessor either allocates the application to one of the 6 CAP Centres, refuses the application and informs the applicant, or asks the applicant for more information before deciding on whether to refuse or allocate to a Centre. If an application is initially rejected and then accepted after provision of

further information, the data record is changed so as to identify the Centre to which the application has been allocated. Only when an applicant has been supplied with an aid, then re-applies for a different set of aids, would there be two data records for a single applicant. CAP staff have said that there are very few of these duplications so far (although it was not possible for the research team to explore this due to the data being anonymised). Thus the high proportion of applications (23%) recorded as refused appears to indicate that a high proportion of applications are rejected by the assessor and not subsequently resubmitted. Reasons for refusal are not recorded on the database, though it is to be expected that feedback is given to unsuccessful applicants. Without access to this data it is difficult to understand the function of the assessor in the processing of referrals.

3.3   Change in rates of referral

The graph in Figure 2 shows change in the numbers of applications referred to Centres or refused/withdrawn over the period from January 2002 to end September 2003. There is a general trend for increase over time, as the CAP project became established. General decline in the final quarter may reflect seasonal variation such as summer vacation time. More volatile are referrals to Abililtynet, showing a steep increase between September 2002 and June 2003, but a sharp decline in the final quarter, which is matched by a sharp increase in refusals overall. The variation specific to Abilitynet may reflect policy changes; it is notable that Abilitynet is virtually the sole agency dealing with referrals of individuals with Dyslexia.
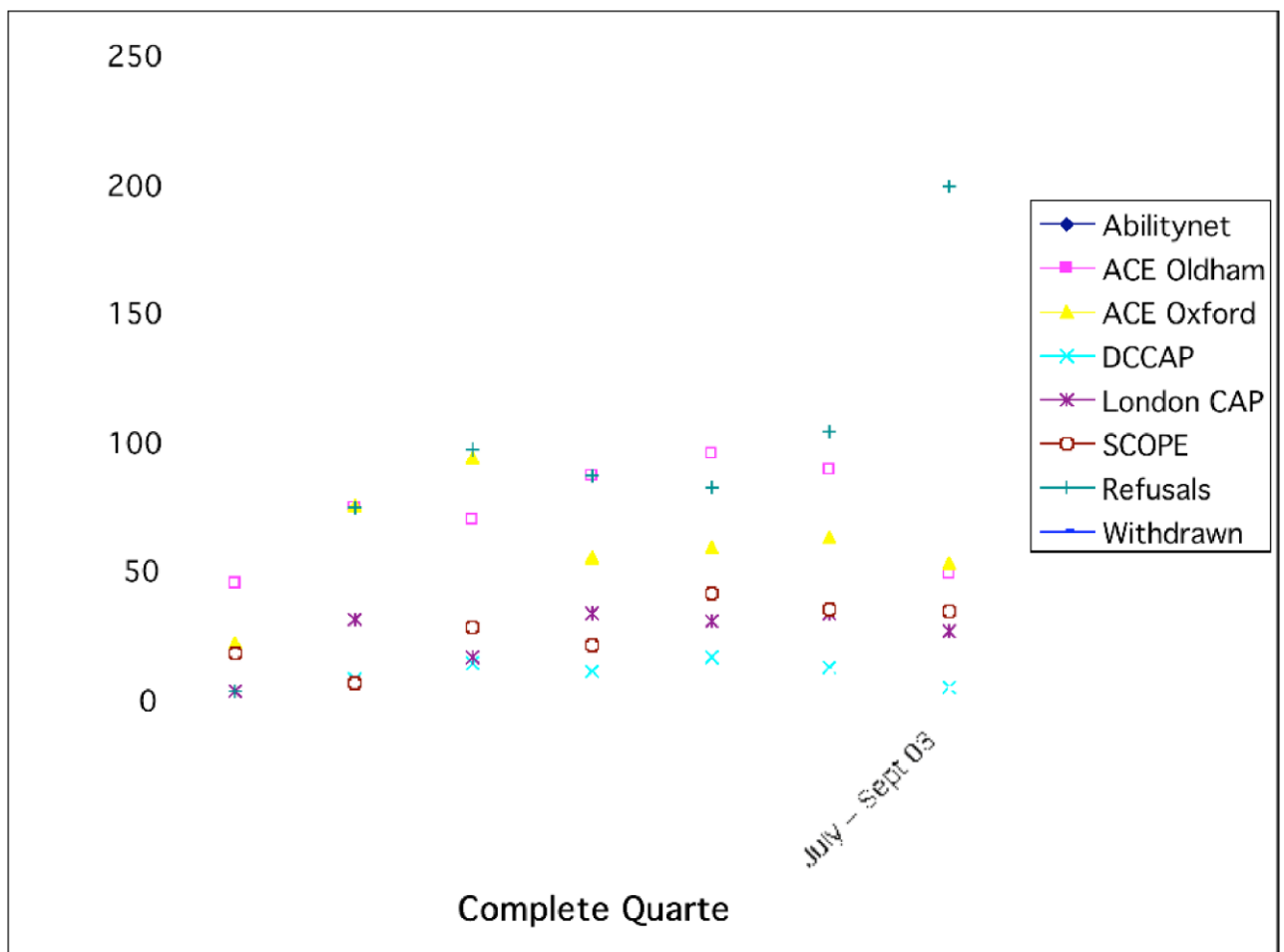
Figure 2   Change in rate of allocation from January 2002 to September 2003.

3.4 Time from acceptance of referral to provision of aid

Table 5 shows the time taken by BECTA to acknowledge receipt of application. The increasing time taken to process applications on receipt is in proportion to the increase in applications. Peaks in numbers of applications occur during July.

Table 5 Time taken to acknowledge applications

Date	Number of applications received	Average days from receipt to acknowledgement
Jan-02	41	0
Feb-02	16	0
Mar-02	62	0
Apr-02	80	4
May-02	143	8
Jun-02	145	5
Jul-02	230	9
Aug-02	53	3
Sep-02	107	4
Oct-02	114	3
Nov-02	140	7
Dec-02	153	9
Jan-03	151	7
Feb-03	179	8
Mar-03	171	6
Apr-03	138	6
May-03	209	11
Jun-03	194	8
Jul-03	307	11
Aug-03	30	11
Sep-03	193	10
Oct-03	173	7
Nov-03	14	9
Bad data	17	(Impossible dates or no date)
Total	3060	

A total of 1508 applications (49% of all applications) had been completed (applicant assessed and aid provided) by the end of January 2004. Table 6 shows the number of applications received per month and allocated to one of the Centres, as well as the average number of days between receipt and completion and their range. The table also shows the numbers of applications still uncompleted and their value as a percentage of those received.

Average time taken to complete shows a systematic reduction throughout the duration of the project. However, it is important to note that, for the more recent months, lower completion times simply reflect the fact that 'easier' or more straightforward applications are completed first, and that these more recent months

show high percentages of uncompleted applications. It is notable that 19% of those applications received in January 2003 were still uncompleted at the time of analysis, one year later.

Table 6   Time from application to completion

Date of receipt of application	Number of completed	Average days taken to complete	Highest & lowest times to complete	Number of applications not yet completed	% of applications received during month & not yet completed	Total applications received during month (not refused / withdrawn)
Jan-02	34	207	17 - 634	2	6%	36
Feb-02	11	177	72 - 295	2	15%	13
Mar-02	54	233	21 - 679	4	7%	58
Apr-02	72	196	10 - 612	5	6%	77
May-02	93	223	13 - 615	11	11%	104
Jun-02	89	222	41 - 589	7	7%	96
Jul-02	148	232	49 - 617	11	7%	159
Aug-02	30	216	50 - 525	2	6%	32
Sep-02	76	194	37 - 486	8	10%	84
Oct-02	74	189	59 - 454	17	19%	91
Nov-02	99	194	42 - 451	13	12%	112
Dec-02	102	176	42 - 401	13	11%	115
Jan-03	93	192	37 - 405	22	19%	115
Feb-03	117	174	41 - 406	27	19%	144
Mar-03	115	150	16 - 361	32	22%	147
Apr-03	76	159	39 - 338	49	39%	125
May-03	86	135	60 - 263	64	43%	150
Jun-03	62	144	31 - 267	86	58%	148
Jul-03	51	161	75 - 255	106	68%	157
Aug-03	7	124	27 - 181	9	*	16

Sep-03	10	130	33 - 160	114	*	124
Oct-03	6	95	50 - 119	114	*	120
Post Oct '03				11		11
Bad data (dates not possible)	3			3		6
Total applications	1508			732		2240

*data not shown, since time elapsed since receipt of application does not exceed average completion time (180 days)

Table 7 shows the number of applications completed by each centre, and the time taken between receipt and completion. In interpreting these data (and those presented in Table 6 above), it is important to bear in mind that some Centres supply interim aids before provision of the final CAP-funded aid. Thus the average time taken to complete the process may reflect different aspects of the service given to applicants.

Table 7 Completion times by Centre

	Number completed	Average days to completion	Highest & lowest times to complete	Number of applications not yet completed	Total applications referred to Centres	Completed applications as a percentage of total applications referred
Abilitynet	583	150	16 - 442	210	793	73.52%
ACE Oldham	380	204	17 - 634	156	536	70.90%
ACE Oxford	304	224	10 - 679	152	456	66.67%
DCCAP	65	167	42 - 387	10	75	86.67%
Scope	108	248	66 - 565	81	189	57.14%
London CAP	68	213	15 - 496	123	191	35.60%
Total	1508			732	2240	67.32%

Table 8 shows the average number of days between receipt and assessment date, and between assessment date and completion. Overall figures, and a breakdown by centre are provided. The tables are based on the 1131 records that contain full information.

Table 8 Days between application, assessment & completion, by quarter

	Average days application to assessment	Average days assessment to completion
Jan - Mar-02	147	86
Apr - Jun-02	126	107
July - Sep-02	131	96

Oct - Dec-02	98	93
Jan - Mar-03	95	88
Apr - Jun-03	80	82
July - Sep-03	71	91

	Average days application to assessment	Average days assessment to completion
Abilitynet	90	72
ACE Oldham	103	115
ACE Oxford	156	101
DCCAP	85	83
London CAP	122	118
SCOPE	114	115

3.5   Applications by age of pupil

Analysis of applications by age has been carried out on 2837 applications received up to 1st October 2003. As shown in Figure 3, the majority of applications have been made on behalf of pupils between 8 and 13 years old, with further substantial proportions on behalf of 5 – 7 year-olds and 14-16 year olds.

Figure 3 Percentage applications by age
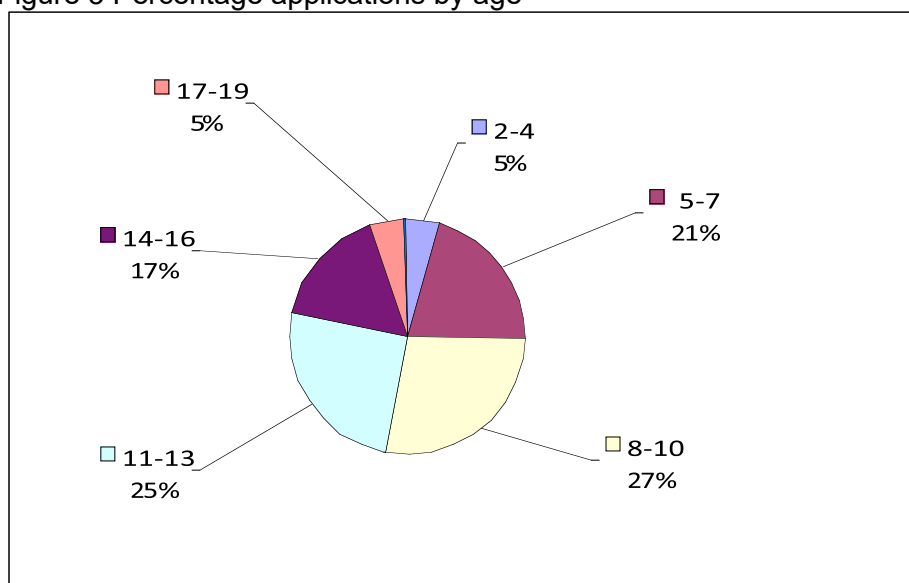
Growth in applications over time has been substantial and broadly uniform across ages 5-16 (see Figure 4). The number of younger (2-4 years) and older (20+ years) applicants has remained consistently small.

Figure 4 Change in number of applications by age

Number of Applicants — By Quarter

Legend: 2-4, 5-7, 8-10, 11-13, 14-16, 17-19, 20+
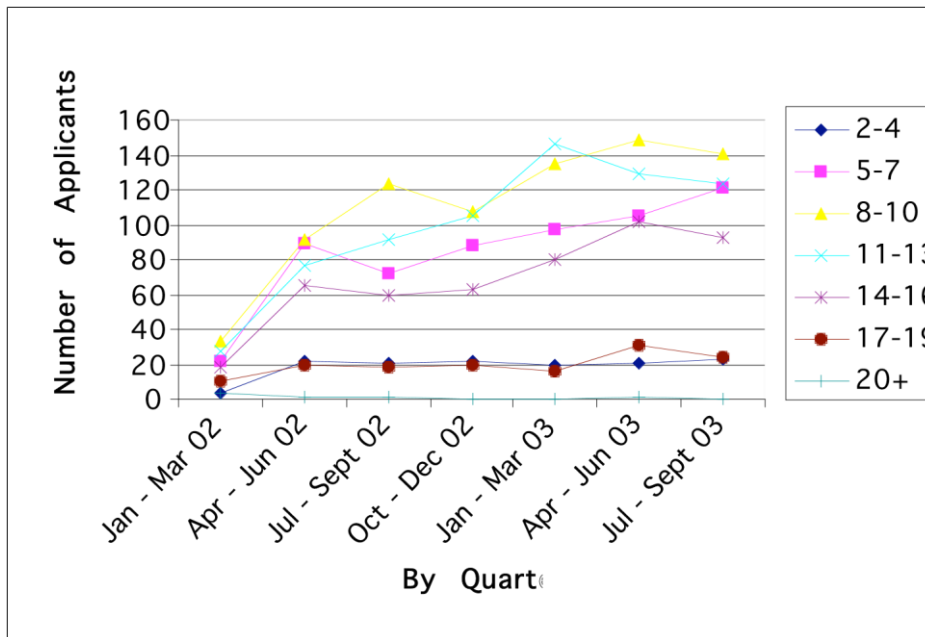
3.6 Educational placement of children

Only 768 records contained information on educational placement. Where possible, missing data were supplied from the Edubase website. For 192 records it was not possible to identify the school type, and 16 were shown as being educated at home. Table 9 shows the percentages of the sample by type of school. The special school population is substantially represented here (42% of all applicants), and primary and special schools together supply 73% of the total. It may be useful to modify the database and the recording process so as to facilitate monitoring of these characteristics of the applications.

Table 9 Percentage of applicants by type of school

Type of School	Number of applicants	% of total
Nursery	13	<1%
Primary	950	31%
Secondary	607	20%
Special	1282	42%
Not shown	192	6%
Home	16	1%
Total	3060	

3.7 Type of need and disability

CAP is designed to help children who have a significant difficulty in communicating with others. It seeks to give support to those who have difficulty in:

- understanding language

- communicating verbally

- using written communication

The Application Form contains 'tick box' questions on the child or young person's communication needs within each of these areas. Those completing the form are also asked to supply their own account of the disability giving rise to these needs, and to indicate the status of the child on the SEN Code of Practice.

Communication needs

The question on application form is as follows:

Is the communication aid needed mainly for

Understanding language Communicating

verbally

Using written communication

One or more of these categories have been ticked by 2032 of the applicants. Responses are shown in Table 10.

Table 10   Distribution of types of need

	Number of applicants	Percentage of applicants
Need for all 3 categories	188	9%
Understanding language & communicating verbally	104	5%
Understanding language & written communication	122	6%
Communicating verbally & using written communication	259	13%
Understanding language only	34	2%
Communicating verbally only	496	24%
Using written communication only	829	41%

By far the most frequent type of need is for help with written communication only, 41% of applicants ticked only this box. 24% of applicants require aids only for verbal communication.

SEN Code of Practice

The application form poses the following question:

At what stage of the Code of Practice is the pupil?
1) Early Years Action / School Action
2) Early Years Action Plus / School Action Plus
3) Statement of Special Educational Needs

In 3033 cases an answer was given. Table 11 shows that the overwhelming majority of applications have a Statement of Special Educational Need.

Table 11   Numbers of applications by Code of Practice Stage

	Number of applications	Percentage of applications
School Action	105	3%
School Action plus	251	8%
Statement	2677	88%

Disability

Table 12 shows data derived from applicants' accounts of children's disabilities. The number of applicants whose disability was described was 2915. The data are diverse. Abstracting categorical information proved to be a complex matter. Following inspection of the data, a search was made of frequently used terms (shown in Table 7.3). Highly specific conditions (Cerebral Palsy, Autism/Asperger's syndrome, Muscular Dystrophy, Down syndrome) were identified in unfiltered searches. Conditions liable to co-occurrence were identified using exclusion filters, in order to limit duplication. For example, 'Speech and Language Difficulties Only' were identified in individuals whose record did not include reference to other disability keywords. The total number of applicants whose condition was described by a frequently used term was 2182. Frequencies of type of disability by centre, as well as numbers withdrawn or refused are shown in Table 12. Notable is the range of disabilities represented. Cerebral palsy is by far the most frequent condition, but visual difficulties are strongly represented, as well as autism/Asperger's syndrome, dyspraxia and dyslexia. Children with specific speech and language difficulties are relatively few, but have the highest refusal rate. These are findings of interest, but they are incomplete and have been extracted with difficulty from diverse data entries. It may be useful to introduce some simple categorical recording of type of disability.

Table 12   Type of disability

Disability	Nos. of apps in which term is included	No. of apps. as % of Total	% of apps. Refused/ Withdrawn	Abilitynet	ACE-Oldham	ACE-Oxford	DCCAP	London CAP	SCOPE	Refused	Withdrawn
Cerebral Palsy	802	28%	13%	108	245	160	5	81	99	76	27
Blind/Visual Impairment	316	11%	20%	187	13	17	5	13	17	59	5
Deaf/Hearing Impairment	188	6%	34%	28	9	13	63	5	4	55	8
Autism/Asperger	239	8%	32%	49	36	42	2	13	19	74	3
Dyspraxia	199	7%	36%	64	22	31	2	7	1	69	2
Dyslexia	156	5%	44%	80	2	3	1	2		67	1
Muscular Dystrophy	49	2%	29%	22	5	4		4		12	2
Down Syndrome	90	3%	40%	10	17	16	1	6	4	33	3
Severe Learning Difficulties	47	2%	23%	4	10	10		3	8	10	1
Epilepsy	42	1%	12%	10	15	3	3	2	3	5	

Speech & Language Difficulties only	38	1%	47%	9	3	4	1	3		18	
Other diagnosed syndromes	147	5%									
Other conditions	600	21%									
Total for which condition described	2915	100									

Figure 5 shows the change in number of applications over time for some of the major conditions. Applications from pupils who are blind or have visual impairment rose more than other conditions during the last 3 quarters.

Figure 5 Change in number of applications by disability
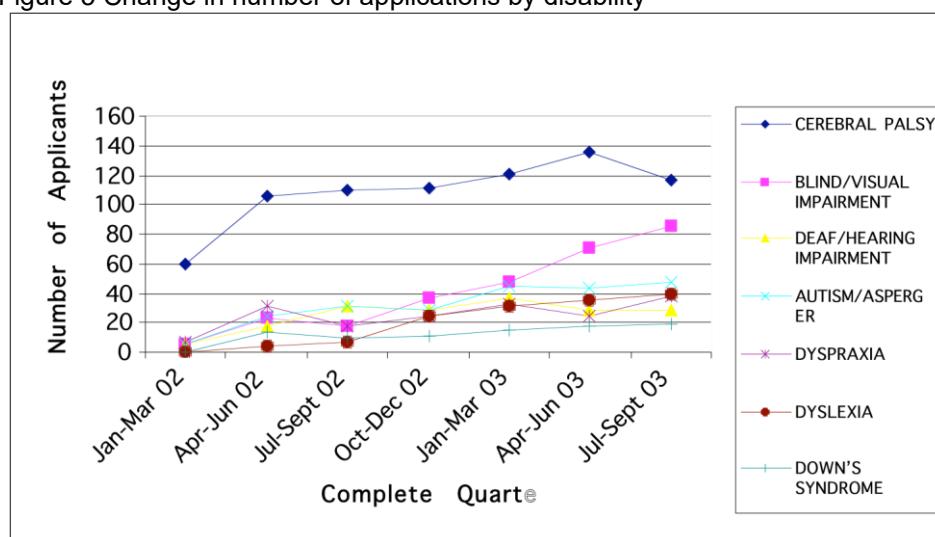
3.8 Summary

With the co-operation of BECTA staff it has been possible to generate a database within which national patterns of referral and processing of CAP applications have been examined. There are plans to extend the database so that information on the nature of provision such as type and cost of equipment and training provided will be more easily accessible for any future research. Throughout this section further improvements/additions to the database have been identified.

The numbers of applications made to CAP varies in line with the population numbers in LEAs around the country, though there are particular areas where exceptionally low levels of referral are recorded.

There has been a general increase over time in the number of applications referred to CAP centres. However, around a quarter of applications are rejected before referral to a CAP centre. The reasons for refusal are not recorded on the database. A sharp increase in refusals in mid 2003, accompanied by a sharp decrease in referrals to Abilitynet (the CAP centre with expertise in dealing with the needs of applicants with Dyslexia), suggests that policy changes may have been made.

Time taken to completion (provision of aid) varies considerably, with up to a fifth of applications uncompleted after 12 months. When the database is expanded, as outlined above, it will be possible to examine this variation as a function of type of provision.

Applicants have been predominantly of school age. Almost all are pupils with statements of special educational need. Forty two percent of applications have come from special schools. Forty one percent of applicants need help only with written communication. Twenty four per cent have only verbal communication needs.
As far as it is possible to tell from the current database information, cerebral palsy is much the most frequent disability amongst applicants, though the range of disabilities represented is surprisingly wide.

RECOMMENDATION
The proposed expansion to the BECTA database should be given priority with the inclusion of categorical data on communicative disability

RECOMMENDATION
There should be closer examination of factors affecting completion times.

RECOMMENDATION
The exceptionally low referral rates recorded in certain LEAs should be explored.

RECOMMENDATION
Information about why applications are refused needs to be collected in a systematic way.

4.0 Service use and costs

A cost analysis was carried out to estimate the cost per child of the CAP service provided by each of the six CAP centres. The methodology is described in section 2 of this report. Additionally, information was collected on the total package of services used by the children in the study who had received communication aids from CAP and were in transition. The services used by these children were costed in order to explore the contribution of different sectors towards the total cost of the package of care that they received. This work is an exploratory investigation and was constrained by the small sample size and the lack of data.

4.1 Background

Based on a review of the literature two studies were found that assessed the costs and effects of communication aids programmes (Tolley et al 1995; Hass et al, 1997). In 1988/9 a one-year prospective, quasi-experimental survey was undertaken in the UK that compared costs and quality of life outcomes associated with specialist Communication Aids Centres (CAC) versus districts with no specialist CACs for speech impaired children and adults (Tolley et al, 1995). Focusing on costs, a broad approach to costing was taken including the cost of formal inputs such as staff time, travel expenses, provision of aids and other expenses such as administration. It is not clear if the cost of capital overheads such as office space were included in these costs. Personal costs incurred by the clients receiving an aid and by their family and friends in order that they access and utilise the programme were estimated including time spent on travel and attendance at assessment and follow-up sessions.

Large variations in average costs for assessments per client were reported when comparing specialists CACs provision with that of the non-specialist CACs, across different CACs and across different client groups. Specialist CAC costs per client were, on average, almost three times the cost of similar services provided through the districts with no specialist CACs (£410 vs. £148 (1988/1989 prices). The cost of the service across different CACs varied between £287 and £659. The cost of the service varied across client groups with the cerebral palsy group having the highest average costs at £492 compared to £360 for all other groups.

Cost variation was explored within the study. Clients with cerebral palsy were more likely to attend the specialist CAC centres than the non-specialist CAC centres. From the initial analysis of the CAP database this also seems to be the case for CAP. Specialist CAC centres typically undertook longer assessments that cost more and they tended not to be so close to where the clients lived so that associated personal costs, including travel, were likely to be higher. Across different CAC centres, an explanation for the variation in cost was the difference in formal inputs to the assessment programmes including CAC staff and supporting specialists and the length and number of assessments conducted. In terms of the outcomes associated with the service, there was evidence to suggest moderate quality-of-life benefits from clients' use of the recommended aids.

The Hass et al study (1997) took place in Sweden between 1992 to 1994. It involved a before and after study in which the costs (and outcomes) associated with the individuals who consented to take part and who had communication difficulties were followed up from the time of the selection process for Centres for Computer-Aided Assistive Technologies (CAAT) (before phase) until it was likely that individual goals defined by the CAAT specialists and the individuals themselves were achieved (after phase).

Costs for the selection process were estimated including client assessment, a testing period, training costs and the cost of equipment. The cost of office space was not included and neither were personal costs. The average cost for the selection process and equipment was SEK14,800 or £1,145 (1993/4 prices). Although seven different CAAT centres participated, the average cost per centre was not reported. The study did not investigate cost variation in much detail however, the average cost of the service for eight different client groups was reported. The client group including those with language impairment, language impairment and speech impairment or language impairment and speech impairment and mild mental retardation had the lowest average cost for the service at SEK7,000 (£541, 1993/4). The client group with severe motor impairment and speech impairment and, in some cases additionally, language impairment or mild mental retardation had the highest average cost for the service at SEK18,800 (£1,454). The authors reported that the use of CAAT reduced disability and increased skills in handling computers. However, the outcomes were not entirely positive regarding handicap, health-related quality of life and utility.

Both these studies are now somewhat dated, the service provided through the CAP centres in the current study differs in a number of respects and the service inputs that were costed differ. However the studies provide useful background information with which to compare and contrast cost variation against the current study and this will be returned to in the discussion section. Generally the studies indicated high costs and mixed benefits to quality of life for those involved.

4.2 Findings

Socio-demographic characteristics

Table 13 reports the socio-demographic characteristics of the children in transition (n=12) and those for whom service use and cost type data were actually obtained, (n=8) given that four children's parents (33%) did not respond.

Table 13: Socio-demographic characteristics of children in transition

Group Characteristic	Total sample (n=12)	Sample for whom service use questionnaires were returned (n=8)
Age	11.44 (SD=2.82)	11.78 (SD=2.70)
Male	10 (83%)	6 (75%)
Level of communication needs as assessed by children's parents (very substantial, substantial, moderate, minor) *Missing data		
• Very substantial	3 (43%)	3 (43%)
• Substantial	3 (43%)	3 (43%)
• Moderate	1 (14%)	1 (14%)
• Minor	0	0
Mobility		
• Ambulant	8 (67%)	6 (75%)
• Walking frame	0	0
• Wheelchair user	4 (33%)	2 (25%)
Communication aid required		
• Voice output communication device	6 (50%)	4 (50%)
• Recording device	6 (50%)	4 (50%)

Cost of the CAP service

A total of 2,239 successful applications to CAP were recorded, some of which were still ongoing. The average cost per child of CAP (including BECTA overheads and any costs claimed from BECTA) was £3,790 (2002/3 prices) varying approximately four-fold across centres from £2,298 to £8,978.

Use of other services

The service use per child over the three months follow-up is reported in table 14. It can be seen, for instance, that each child had at least one contact with a learning support assistant (LSA) and, on average, they had 31 contacts with LSAs over the three-month period. It should be noted that the contacts with LSAs and teachers of children with specific needs were not costed separately to avoid double counting since these costs were included in the costs of the schools.

In terms of the health care sector, it was found that the most common contact, perhaps not unsurprisingly, was with a speech and language therapist. A number of different voluntary sector services, including support and activity groups were attended by the children. Social worker contacts were the most common type of social service utilised. A few different private sector services were utilised on behalf of the children including private childminders and private tuition for the children.

Table 14: Use of services by children in transition over 3 month period.

Service use	Aid	
Sample size	N=8	
	Mean, SD	%
Education	Number of contacts	
School	-	100
Learning support assistant	30.75 (26.11)	100
Teacher of children with specific needs	9.25 (20.92)	38
School nurse	4.81 (12.63)	25
Other education service	3.00 (8.49)	13
Educational psychologist	0.13 (0.35)	13
Health		
Speech & Language Therapist	1.50 (4.24)	13
Outpatients	0.88 (1.25)	38
Physiotherapist	0.72 (2.03)	13
Doctor	0.63 (1.19)	25
Occupational Therapist	0.13 (0.35)	13
Other NHS community services	0.13 (0.35)	13
Practice nurse	0.13 (0.35)	13
Voluntary	4.38 (5.01)	63
Social Services		
Social worker	0.69 (0.80)	50

	Respite care	0.13 (0.35)	13
Private			
	Private sector services	2.13 (4.22)	38

Cost of services additional to CAP

Service use questionnaires were completed and returned by two-thirds (n=8) of parents of the children in transition. Not including the cost of CAP, the total cost per child per week was £272 on average. As seen in table 15, the education sector is much the largest contributor to the overall package of care costing over 90% of the total cost of all services received. The majority of education costs included the cost of schooling. Five of the children (63%) attended special schools that were estimated to cost between £16,967 and £23,725 per year for these particular children (CIPFA, 2000).

Table 15: Total cost (£) of all services used per child per week (Mean, SD, %)

Sector	Aid (n=8)			
	Mean £	SD	% of total cost	
Education	248	168	91	
Health	11	19	4	
Voluntary sector	5	5	2	
Social services	4	5	2	
Private sector	4	10	1	
Total cost per child per week (w/out CAP costs)	272	184	-	
Total cost per child per year (w/out CAP costs)	14171	9569	-	

Summary

This chapter has explored, in brief, the cost of the CAP service and the use and cost of services besides CAP that were used by a very small sample of children in this study. It is very important to note that the robustness of these finding are highly questionable and it is not possible to place a high level of confidence in the findings.

A top-down approach to costing CAP was undertaken primarily for pragmatic reasons including that it was important to apply the same costing methodology to obtain a cost for each CAP centre. Ideally, in order to cost the CAP service for each centre a bottom-up approach to costing would have been taken. The bottom-up approach to costing identifies the different resources used to deliver the service and assigns a value to each. These values are then summed, linked appropriately to the unit of activity in order to calculate a unit cost of the service.

In order to cost a service it helps to assess a service that is stable over time. The CAP project has only been in operation since 2001 and it is likely that CAP centres are continuing to develop their service. It is might be the case that the cost of CAP per child reduces over time as, for example, centres establish themselves, the startup costs are spread over a longer time horizon and the process of supplying aids is refined and the benefits of positive partnership fostered.

The cost variation of the CAP service across centres was considerable however it was not part of the remit of this research to explore this and therefore no formal assessment was undertaken. Nevertheless, a number of factors which may impact on costs emerged based on eye-balling the data, personal communication with CAP centre finance officers and the Tolley et al (1995) study, which are detailed below, however it would be informative to test these hypotheses empirically.

Cost of the assessment
Different centres take different approaches to assessing the needs of the children, possibly because of the level of need of the child, the type of service being provided, type of intervention supplied and the different organisational set-ups of the centres. Some centre's assessments take up to a day maximum. For other centres the assessments involve many different professionals and can take many months with substantial costs attached. There is large variation in the cost of communication aids available. Innovative and more technologically complex equipment is likely to have a higher cost however it is not known whether certain centres tend to provide more expensive equipment. Additionally, some manufacturers may be involved in the assessment process and it is not known whether the cost of this involvement is passed on to the CAP centre as part of the price of the equipment provided.

Specialist centres versus general providers
Centres providing communication aids to narrow target groups with specific needs tended to cost more than those who provided a service to a broad range of clients. For the latter, it was possible to share the use of facilities across the different types of clients and to cross-subsidise provision.

New versus established centres
Some centres were new and incurred considerable costs to set up the infrastructure of their service. Alongside this, there are likely to be substantial costs involved in marketing the new service, tapping into unmet demand and enabling potential users to gain access to provision.

Small versus large-scale providers
The number of applications varied tenfold across centres. There was a negative relationship between the average cost of CAP per child and the number of children assessed. Currently some CAP centres have much fewer applications than others. CAP centres that provide a service to more children may have greater opportunity to achieve economies of scale, lowering the average cost per assessment as provision expands. CAP centres having greater throughput tend to have lower costs.

Location
The cost of resources used to provide CAP are likely to be highest in London and locations where buildings, land value and wages are high.

In the background to this chapter the cost of the communication aid programmes calculated in the Tolley et al study (1995) and the Hass et al study (1997) were reported and they appear considerably lower than the cost of the CAP service. However, it is not straightforward to compare the results of the earlier studies to the CAP service. The objectives of the programmes differ in a number of respects including the type of programme and its objectives, the costing perspective and methods used, the characteristics of the populations served and the technologies supplied.

One objective of the CAP service was to extend access to communication aids and resources were invested to promote this however, it is not clear that this was the objective of the communication aid programmes for the other two studies. Whilst CAP focuses on providing a service to children of school age, the programmes evaluated by Tolley and Hass were not age constrained. In the Tolley et al study (1995) it was found that the cost of the service was more expensive, on average, for younger people (1 to 30) compared to older age groups. The costs of CAP presented here include costs of capital and overheads, whereas it appears that this cost was not included in the costs calculated in the other two studies. In the Tolley et al study (1995) it was found that costs were likely to be higher if clients were provided with a permanent loan rather than a temporary loan of equipment whereas CAP aimed to make a permanent loan. The costs reported across the different studies relate to different financial years. There are challenges associated with inflating costs to a common year because the type of inputs into the service and the cost of inputs differs over time and depending on the objectives of the service. Additionally, for the Hass study the currency needs to be converted and currency exchange rates can fluctuate substantially over short periods of time. Whilst all of these factors provide explanation as to why the CAP service tended to cost more, Tolley et al's inclusion of personal costs would add to the cost per client. Tolley estimated that personal costs represented 14% of the total average cost of the assessment programme per client. Tolley suggested that these costs were influenced by the length of time spent in assessment and the travel time and expenses of clients and their families or friends.

In order to make a judgement about the efficiency of a service it is useful to compare two or more types of services and to compare costs and consequences associated with the services (Drummond et al, 1997) as per the Tolley et al (1995) and the Hass et al (1997) studies. In practice, interventions with favourable outcomes may have high costs and interventions with worse outcomes may be worthwhile if they reduce costs and release resources which can be used to produce higher valued outputs elsewhere.

Key points
- The information reported in chapter 4 needs to be interpreted very cautiously and further research should be conducted in order to obtain more internally and externally valid results.
- The cost of the CAP service differed substantially across CAP centres, ranging from £2,298 to £8,978 per child. Many factors might explain the variation in costs across CAP centres and should be considered before comparing costs. Outcomes were not reported here but it would be important to assess outcomes alongside costs in order to assess comparative efficiency arguments.
- The children in this study used a wide range of services across a number of statutory and non-statutory sectors with considerable cost implications and with implications for inter-agency collaboration.
- The cost of education services was a very large component of the total cost of the package of services received by these children.

RECOMMENDATION

Future costings of the CAP service for each centre should use a bottom-up approach, which identifies the different resources used to deliver the service and assigns a value to each.

RECOMMENDATION

An analysis of the CAP service costs should be carried out when the service has been running for a longer period so that start up costs are spread over a longer time horizon.

5.0 Application

CAP supports the provision of a wide range of communication aids. These can vary from complex voice output communication aids to relatively simple single message speech output devices. They can also include portable writing aids such as laptops with a range of specific software options, monitors, printers (including Braille printers) and mounts and switches.

The aim of CAP is that it should complement other sources but not become the main provider of communication aids. On the CAP web site there is a reminder about this for applicants.

Figure 6 Advice to applicants

> - You must show that the provision of an aid is integral to the broader provision being made to meet the pupil's needs.
>
> - You must demonstrate clearly that the provision of the technology will enable the child to make progress with their communication and access to the curriculum.
>
> - CAP should not be the first or only port of call for support.
>
> [Source: CAP Website]

Since CAP was developed the applications have grown from forty applications a month to over 300 in July 2003. There is a noticeable increase prior to school summer holidays. Applications to CAP are completed online and guidance is available on the CAP website.

When an application is received at BECTA the person in the role of the 'Assessor' reviews the application and if all the necessary information is included on the application form it will be allocated to an appropriate CAP Centre.

In this section of the report the analysis will cover the development and use of the application form, procedures and outcomes of the submission to CAP and the referral from CAP. The information was collected from interviews with parents, teachers and speech and language therapists involved with the sample of children as well as staff at BECTA, staff at the 6 CAP centres, interviews with local CAP assessors and responses from 14 LEA officers

5.1   Application form

Two central themes emerged in the analysis of interviewees' comments concerning the application form: development of the form and perceptions that specialist insight and skills would reward applicants with an accepted application

Development of the application form

As CAP has grown meetings have been held with the 6 CAP centres in order to develop appropriate application procedures. The CAP centre staff that were interviewed spoke positively about their contact with the staff at BECTA. They acknowledged BECTA's support and willingness to utilise tried and tested procedures that had been developed over time for example, by the ACE centres.

On the whole interviewees felt that the lines of communication were good. During the development of the application procedures some people acknowledged the need for change. '*Originally the referral forms were not clear enough*' (CAP contact)

However, others reported irritation with frequent changes:

'*Stop changing the forms – I felt that the goal posts kept changing'. 'All assessors feel confused about what we filled in'.* (CAP contacts).

Specialist insight

Where applications were not led by speech and language therapists or specialist teachers there was a feeling that application forms could be more 'user-friendly' with more help for first-time referrers offered.

'all the sort of paper work has taken a long time, and I know of other people that have been quite put off by that, but obviously once you've done it, it becomes easier, as it were, to fill in application forms and … when you know people it is a lot easier. It's almost as if, some provision … needs to made for first time referrals or people new to the system to get some extra support and help in filling in a referral form.' (Teacher)

Even with those who might be considered more 'expert' for example, speech and language therapists (SLTs), filling in the application form was time-consuming and there was an impression that the wording of the referral might be key in whether it was accepted or refused and criteria for rejection were not clear.

'There is also air of mystery round it, like there is applying for lots of things and I feel there is an art to filling in these application forms and I think you if got the idea of what CAP are looking for, your application would be that much more successful.' (SLT)

'I know it's an open referral system but for some reason when people are doing it on their own even though they've got back-up from occupational therapy, speech therapy whatever, … those ones are being rejected and I'm not quite sure why that is… It takes me about two hours to fill in a referral form because you've got to be very conscious of how you word it. I think that once you've worked out how to word it then they tend to be accepted.' (SLT)

In order to investigate these comments in more detail the title of the lead applicant was identified for 2,425 applications. This information was taken from the application form. In table 16 the lead applicant's title/relationship to the child is given along with the number of applications and the number of refusals.

Table 16 Percentage of refusals by relationship to child

Contact Relationship	Number of Applications	Number Refused	% Refused
Occupational Therapist	32	16	50%
Father	25	12	48%
Mother	139	65	47%
Parent	66	24	36%
Learning Support Assistant	9	4	44%
SENCo	375	154	41%
Headteacher	198	66	33%
ICT Assessor	9	3	33%
Teacher	384	105	27%
Other	166	40	24%
Specialist teacher	21	5	24%
Teacher of Hearing Impaired Children	42	9	21%

Support Teacher	81	15	19%
LEA Officer	22	4	18%
Teacher for Visual Impairment	78	13	17%
Advisory Teacher	79	12	15%
Speech and Language Therapist	510	61	12%
Deputy Head	98	8	8%
TOTALS	2425	621	

It is notable that applications by parents have a high refusal rate. This may be because they did not demonstrate how the LEA and school were already involved in supporting their child. Speech and language therapists have a very low refusal rate. There are some school staff who appear to have high refusal rates (SENCOs – 41%, Learning Support Assistants, 44%). Given the high number of applications made by SENCos this does raise some concerns and it may be worth investigating this in more detail.

Changes in Knowledge and skills
As CAP has developed, staff in the CAP centres report a change in the content of the applications. They felt that the information included in applications had become clearer and more specific.

'The change has been in the quality of the referrals, it is better information'.

'I think the referrals have changed in content. They are more formative, much clearer information, easier to work with'.

'Much better referrals, better thought out, more appropriate'.

The interviewees felt that these changes were due to the feedback and information given to the referrers by the staff in the CAP centres and at BECTA.

Initially some CAP centres put considerable time and energy into arranging meetings and going out to LEAs and explaining what referrals were appropriate.

'Our initial aim was to identify people in LEAs who need to know about the project [CAP]. The first 6-12 months of the project. That was an opportunity for us to get people to understand what was an appropriate referral. They would say 'so and so' should be here, so we would often have a second meeting, it was an absolute killer but it was worth it. (CAP Centre staff)

Others acknowledged that they '*are talking to more LEAs and talking higher up but it depends on their [LEA] agenda. It is very variable…*' (CAP centre staff)

5.2   Submission to BECTA
Interviews with relevant stakeholders in the application process identified two central themes that reflected their experiences in submitting applications to CAP. These were:
•   Timescale from acceptance of application to assessment
•   Use of a web based application form

Timescale

One parent commented that because of the problems she, the school and the LEA had encountered in filling in the application forms (i.e. what information was required) the process took a total of 20 months.

When they were asked about how the process of being involved with CAP could be improved, half of those interviewed mentioned the length of time the process takes, particularly from application to assessment. One child included in this study had waited 12 months between application and assessment and was still waiting for his voice output aid 5 months after assessment.

The time from referral to delivery of a communication aid can be very quick but unfortunately some of the figures in Section 3, table 6 support the view of the parents with concerns about the timescale. The longest time taken to complete the process from referral to delivery of aid could be over 600 days.

One speech and language therapist appreciated the need to collect a lot of detailed information at referral but did acknowledge that the process could take longer than one would like. She said:

'it did just take a very, very long time for him to be seen from the date we referred him, and then again we're going to have to wait for the aid, which is obviously quite frustrating really. Cause we did do a lot of work with him beforehand, when the referral was going ahead sort of making sure it was what he wanted, and it … seems to lose a lot of emphasis if you're having to wait… it's a shame really.' (SLT)

The time factor was echoed by two of the CAP contacts with one stating that they were concerned about the time taken:

'The time taken to get anything. People get excited, like dangling a carrot'.

Web based application form

Two speech and language therapists particularly mentioned the difficulty with electronic submission of forms. This was because of their difficulty accessing computers with email. One worked in school but had little computer access there and had to go elsewhere to access NHS computers. The other, working in a special school, had her own computer but without email access.

'I find it quite difficult 'cause I don't have email access on my computer at work, so I've had to give one of the teacher's address, so he's down as a main contact but he doesn't see the children or know them terribly well, and that holds things up a bit.' (SLT)
The timescale between referral and completion clearly needs further monitoring given the variation in completion rates. Further investigation is required in order to identify the factors that contribute to the longer time periods.

5.3 Referral from BECTA to CAP Centres

When a referral has been processed at BECTA it will be sent to one of the 6 CAP centres and the administrator at the centre will enter the information on to the centre database. They will also check that all the necessary information is available before an assessment can take place. The final arrangements for an assessment will depend on whether the centre has a national or regional remit. CAP centres that have a national remit act as point of contact for BECTA and then the *'referrals are distributed to an appropriate geographical centre'.* (CAP Centre staff). A letter is then

sent to the applicant explaining who will be co-ordinating the arrangements for the assessment.

In a CAP centre that has a regional remit, the referral is passed to an appropriate member of staff to co-ordinate the assessment. The member of staff will be selected on the basis of the way in which the CAP centre manages their liaison with local schools and LEAs. For example:

'We have teams of 3 people and within each team, each person will have a number of LEAs that they liaise with and the referral will go to them'. (CAP centre staff)

'We divided the area up geographically so we have been able to build up more personal links with people'. (CAP Centre staff)

When referrals are received the CAP staff member will, if they are available, invite the local CAP contact(s) to become involved in an assessment or lead the assessment.

CAP Contact

One of the aims of CAP was to increase the knowledge and skills that professionals in health and education had about the use of communication aids. One of the ways of doing this was through the development of local CAP contacts. Individuals or groups could become a CAP contact and an assessor. There is information on the CAP website about the roles and responsibilities of a CAP assessor which is reproduced below.

The duties of a CAP Assessor are to:

- submit to the essential Quality Assurance procedures undertaken by the CAP Centres involved in the project.

- obtain approval to undertake CAP-related activities from relevant line managers

- co-ordinate the assessment of pupils under the CAP scheme upon receipt of an application

- arrange for the assessment, including notifying all relevant parties as specified in the application form of the venue, date and time of the assessment

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- collect all relevant background information prior to the assessment so that recommended equipment becomes integral to the ongoing broader provision being made to meet the pupil's needs.

- obtain a range of equipment and resources judged appropriate to the need of the pupil they are assessing

- where appropriate, adopt, a team approach to assessment

- undertake an assessment using an appropriate procedure or protocol, to a professional standard

- prepare an assessment report to an agreed format which provides detail of the assessment process, judgements reached and recommendations for the provision of equipment by CAP and other third parties, so that recommendations can be validated and implemented

- distribute the assessment report to the CAP Centre and any relevant third parties

- as appropriate accept delivery and responsibility for setting up equipment

- access technical expertise in relation to setting up and maintenance of equipment

- co-ordinate responsibility for evaluating the outcomes of provision of equipment throughout the duration of the project.

- identify a person to act as a training contact and coordinator, providing the link between trainers and trainees **Assessors must demonstrate:**

- an ability and willingness to keep up-to-date with technological developments, applications and strategies

- a willingness to identify personal training needs during the life of the project

- a commitment to the aims of the project throughout its duration

- a willingness to establish and maintain contact with others involved in the project, including attendance at CAP networking meetings.

[Source: CAP web site]

The success of developing local CAP contacts has varied from centre to centre. In some areas strong teams have developed but in others little progress was made.

'We have 7 or 8 teams that we are working well with. Then there are places where there are no teams but one person' (CAP centre staff)

Initially local CAP contacts appeared to ally themselves to specific centres

'The ACE centres already had links with LEAs and teams of people…'.

In some areas an assessment team may have been established for some time prior to CAP, but may not have a multi-professional profile or work in a way expected of CAP assessors *'they are not multi-disciplinary and often don't include the school '*.

Where local assessors are based some distance from a CAP centre then video conferencing has been used to facilitate contact between local assessors and the CAP centre staff.

It would seem that some schools saw their involvement as CAP contacts as a positive development because it provided opportunities for staff to continue their professional development. Some special schools had become local CAP contacts as a way to provide outreach support while in other schools teams were only involved with children from their own school.

'*Some teams can only be involved with children from their own school either due to time or interest or a centre may have agreed to focus on 4 or 5 schools and work with people in the schools and this should cascade across the authority*'   (CAP Centre staff).

When a CAP assessor is based within the LEA there have been advantages in the process of assessment and provision. For example, the CAP contact has been able to clarify LEA input prior to the assessment, saving time and effort involved in negotiating LEA provision after assessment and securing relevant signatures to the assessment form. As one LEA Officer who was also a CAP contact stated:

'*We do not expect any pupil on School Action Plus / Early Action Plus or above to go to CAP unless the LEA has already made some provision*'.

Many of the local CAP assessors who were interviewed had contact with more than one CAP centre. The majority of them had been in touch with Abilitynet. Their involvement with the CAP centres had mainly been to discuss individual children but also included attendance at meetings at CAP centres and gaining support from the centres.

CAP assessors felt positively about CAP. They felt that CAP had increased awareness about communication aids and the use of technology with the CAP website being particularly helpful. There were children who now have communication aids who, without CAP, may not have been referred.

'*CAP has opened people's eyes in school to see that technology is OK and acceptable*'.

'*CAP has made it possible to access the curriculum materials*'.

'*In 2 schools there are now CAP co-ordinators like literacy or numeracy coordinators*'.

Some local CAP contacts had carried out assessments for more than one CAP centre and perceived a variation in the process. It appeared that the level of support and monitoring provided by CAP centres varied. This implied that some CAP centres had different approaches to the assessment process and that the level of support available to CAP assessors varied :

'*I must say that there is huge variation in the way the centres prepare for the assessments.*' (CAP contact)

'*The centres vary in their quality control*'. (CAP contact)

In some instances the support and the withdrawal of support was valued and considered appropriate

'*They helped organise things before hand*'.

'*It's a good procedure, you get a sense of really listening to the child and parents*'.

'*Initially I was accompanied by someone from the CAP centre but not now*'.

However, some local CAP assessors felt that '*they [*the centre*] leave a lot of responsibility to me*' .
It would seem that the CAP centres need to monitor the views of their local contacts about the level of support that they think they require. The needs of the child being assessed, the CAP contact's previous experience and the length of time that they have been involved with specific CAP centre may influence the level of support that is offered.

5.4 Key points
- It is acknowledged that CAP centres have invested significant energies in supporting applicants, CAP assessors and LEAs so that they are able to make informed applications to CAP.
- There is evidence that people applying to CAP for funding are demonstrating improved knowledge and skills when completing the application forms.
- Changes in the application forms were perceived as frequent and a source of irritation for some of those interviewed.
- Web- based application procedures appear to reduce bureaucracy but may exclude professionals with limited or no access to ICT.
- Where a speech and language therapist or specialist teachers did not lead applications, application procedures including the application form were viewed as overcomplicated and/or unclear. This is reflected in the different rates of refusal for the different lead applicants.
- Many effective local CAP assessor teams have been developed.
- In some areas the development of local CAP assessor teams has been less successful.
- Local CAP assessors report that the level of support and guidance available from CAP centres varied.

RECOMMENDATION

The frequency with which changes are made to the CAP processes needs to be minimised. Where changes are necessary, information about amendments should be made available as far in advance as possible.

RECOMMENDATION

Further information on how an application is progressing would enable parents and professionals to track the process and reduce their stress. It may also reduce the number of telephone calls made to CAP about the progress of an application.

RECOMMENDATION
Additional information and advice should be available to first time referrers to CAP – especially parents and others who appear to have a high refusal rates

6.0 Assessment

For children with special educational needs a recognition that effective assessment and provision necessitates partnership between children, parent(s)/carer(s), schools, LEAs and other relevant agencies is enshrined within the SEN Code of Practice (1994, 2001) and the government's recent strategy for SEN, 'Removing Barriers to Achievement' (2004). Such partnerships are particularly pertinent when children are being assessed for the provision of communication aids (Clarke, Price and Jolleff 2001).

The assessment of children for a communication aid involves the consideration of health, education and social issues alongside an evaluation of children's strengths and needs when communicating with family, friends and professionals.

Among the professionals who work with children who use communication aids and who may be involved in an assessment are learning support assistants (LSAs), specialist teachers, SENCOs, class teachers, speech and language therapists, physiotherapists and occupational therapists. Children of school age are usually assessed in school and their parents are invited to attend.

'I would do the assessment in school, gathering all who are involved including the parents. Sometimes it's easier to talk about the issues before we see the child. Then we want to find out the child's view and how they see themselves in school and talk about what can help them'. (CAP Centre staff)

The specific details of an assessment procedure for children who need a communication aid will vary depending on the physical, social and educational needs of the children. It will also be necessary to take into account the awareness of the professionals already involved in supporting the children's learning and the setting in which they are being educated.

6.1   Multi-professional team working

The fact that the professionals working with children who use communication aids are often employed by different agencies, such as education and health, has made it difficult for them to develop effective partnerships for supporting children. The challenges as well as the benefits of collaborative work between professionals from health and education have been well documented (Wright and Kersner 1998, 1999; McCartney 1999). The Joint DfEE/DoH Speech and Language Therapy Working Group recommended that 'Therapy for children of school age is best carried out collaboratively within the school context' (DfEE/DoH, 2000 p5: 11) and assessments should also happen in an educational setting.

CAP centre staff acknowledged in interviews that as CAP continued they had become more specific about identifying which people should be involved in the assessments and ensuing discussion.

'Parents need to be involved; some remote teams haven't talked to the parents. They don't find it as central to their way of thinking as it is with us. Some advisory teams and 'bought in' consultants need to be convinced to work with parents as it may not have been their way of working previously'. (CAP Centre staff)

'In school, parents are invited and the school will guide us on whether the parents are there all day or just for the afternoon'. (CAP Centre staff)

LEA officers reported that one of the impacts of CAP had been a change in multiprofessional contacts.

'Teams have been formed for mutual support and assisting with assessment'.

'It has enabled closer working with other agencies particularly health services'.

'It has provided focused multi-agency work'. (LEA Officers)

The establishment of London CAP involved collaboration between health and education and the formation of DCCAP brought together two organisations, Def@x and BATOD.

6.2   Composition of teams

The findings from the interviews indicated that the numbers of people involved at each assessment varied depending on the needs of the child. CAP assessors described teams that had consisted of a range of professionals and parents.

- *'The SENCo, sensory support teacher and LSA'.*
- *'The occupational therapist, myself, the speech and language therapist and parents all meet together in the school to do the assessment'.*
- *'Speech and language therapist, someone from the CAP centre, person from Education who is responsible for children with physical disabilities. We haven't needed an occupational therapist or a physiotherapist'.*
- *'The parents, teacher and an LSA plus someone from the CAP centre, speech and language therapist sometimes someone from the LEA responsible for CAP'.*

Some parents attended the whole assessment while others attended the discussion after the assessment. One CAP contact involved parents in the following way:

'It is my policy to ask the school to set one of the targets, ask parent / carer to contribute to one of the targets and the pupil wherever practicable to contribute to formulating the third target'. (CAP contact)

Four of the five teachers interviewed as part of the child case studies, who had been present at the child's assessment, were those who had led the application to CAP for a communication aid. Of the teachers not present at assessment, all bar one were in cases where the Speech and Language Therapist or a parent had led the application.

Two teachers commented that they would have liked to have had more input at the assessment stage in terms of what would be most useful for the child. Both felt under-prepared for the arrival of the aid and that a greater involvement early on would have helped them to consider how best to incorporate the aid into their own classroom.

As stated earlier it is not always easy to gather a multi-disciplinary team together and two of the speech and language therapists particularly commented on this as an area that could be improved on, saying that it was difficult to get all the relevant parties together for the assessment. Other professionals were not always able to attend the assessment as they could not be released and were not being paid to do extra time. One speech and language therapist commented:

'The individuals [professionals] were very, very keen; it's just bureaucracy that gets in the way'. (SLT):

6.3   The assessment process

In this section the perceptions of those involved in the assessment process are reported including, parents, school staff, speech and language therapists and local CAP assessors.

The comments from parents and teachers on the assessment process were very positive. This is shown in figure 7. Of the fourteen parents interviewed after their child had received a CAP funded aid, four particularly picked out the expertise and professionalism of the assessors as the aspect of CAP with which they were most satisfied

'The actual assessment… was excellent. Their expertise on what equipment to buy, that was brilliant'. (Parent)

Figure 7: Views of parents, teachers and SLTs on the assessment
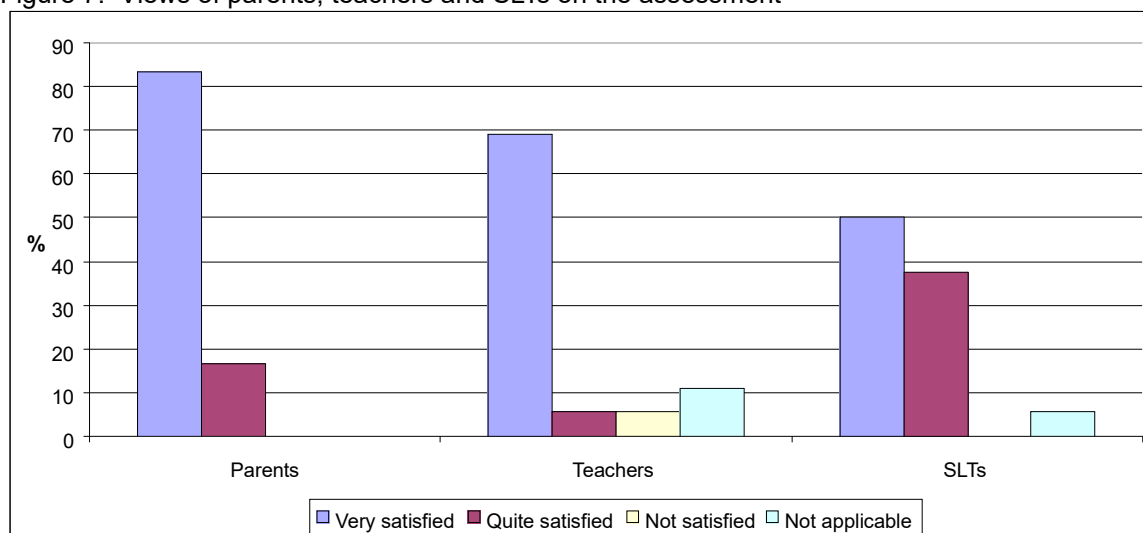
The teachers who made the most positive comments on the assessments were themselves involved in the assessment, either by co-ordinating the team of assessors or by discussing their views on the communication aid with the other professionals involved. In one case the teacher reported that as well as supporting the child during the assessment she was fully consulted on what she thought would be the most appropriate for the child at school.

'[I was involved in] describing his problems and describing the things we wanted to get out of the aid, what the aims were really… [the assessors] were brilliant and we had a really good day, they went away with lots of ideas and they explained that they would then write their report, which then they emailed back so I could read it and make sure that it was all ok with all of the different recommendations'. (Teacher)

Two of the education staff interviewed were LSAs working with the children concerned. Both reported that they were present at the assessment and said that their role there was to support the child, clarifying and confirming answers the child gave. One of these LSAs commented later that she was not satisfied with the assessment, but declined to comment further on this.

The picture from the Speech and Language Therapists appears more mixed, though none were 'not satisfied'. For some, the evaluation of 'quite satisfied' regarding the assessment reflected their general view of all the aspects of the CAP process as 'quite satisfactory'. One speech and language therapist commented that although she was very happy with the assessment in terms of identifying the best aid for the child, there were some problems with the organisation of the assessment. For example:

'[It] was to do with getting hold of the aids we wanted at the time we wanted and then having time to notify people… we're noticing with CAP generally… because of the success of it really I think it's actually quite hard to get hold of the equipment to loan for the assessments.'

After an assessment has taken place the recommendations will be discussed and recorded in a report. The report should include the assessment recommendations; information about where the equipment will be sent, who will do the training, nonCAP funded recommendations; allocation of CAP points and a record of three communication aid focused targets. The database of completed assessments for the end September 2003, shows that in 164 (14%) cases the record of three focused targets is neglected within the reporting procedure. This has implications for parents and professionals in motivating action, monitoring progress and measuring outcomes for children provided with communication aids.

6.4   Non CAP-funded items

The ways in which LEAs identified which recommendations from the CAP assessment they would fund varied. Two LEA officers stated that it was through discussion with schools, CAP Centres and budget holders. Another one said that the authority was still formulating its policy and another acknowledged that it was not a clearly divided area.

Others LEA respondents had developed specific procedures.

- *'The LEA funds the Access Through Technology Team (which is currently a 1.5fte post – although it is actually shared by 6 people). In funding this Team it is able to provide the local support and training element of a CAP assessment'.*

- *'The LEA automatically funds training, support and extended warranty'.*

- *'The LEA has an agreement to ensure that any recommendations provided during an assessment in which it is actively involved will be honoured'.*

- *'We only ask for part of any provision, we supply the rest through our own funds (via Access funding)'.*

- *'This service asks the LEA to fund a computer with supportive access software and it is hoped that CAP can support newer broader technology. E.g. CCTV and digital audio equipment'.*

When an assessment is completed and the signatures are required there was a perceived advantage in having an officer of the LEA as a CAP contact as this seemed to speed up the process of getting signatures. At the time of being interviewed, one member of a CAP centre stressed that they knew that 20 children

had been assessed and the reports written and now the final signatures were needed before the forms could go to BECTA. One CAP assessor stated that:

'Negotiating the signatures takes time and can wait 2 months for a report to be signed'.

One member of a CAP Centre in a different geographical area took on the task of collecting signatures in order to reduce the impact of such delays.

'…signatures especially from LEAs because CAP contacts find this time consuming so I will not send the report out to them but send a letter asking for their signed agreement'.

6.5 Key Points

- It is recognised that multi-professional team assessment involving parents and other relevant stakeholders is a logistically complex task and takes time to arrange.
- The composition of the assessment teams varies depending on the needs of the child.
- Parents and professionals felt that the CAP assessments were very professional and provided an assessment of a high quality.
- There is a lack of consistency in recording the three targets on the assessment report.
- Teachers gained a great deal from being involved in the assessment process and the ensuing discussion.
- It is recognised that the development and maintenance of local CAP assessor teams takes up significant time and energy of the staff at the CAP centres.
- There is a need to ensure appropriate quality assurance measures are in place for assessments conducted by local CAP assessors so that there is a consistency across CAP centres.

RECOMMENDATION

The management system within schools should enable class teachers to be involved with CAP assessments as often as possible in order to facilitate their continuing professional development in the area of SEN and ICT.

RECOMMENDATION

It is recommended that close attention be paid to the recording and evaluation of targets for children and the staff with whom they work. Such information is likely to provide a valuable evidence base for the attainment and progress of children using communication aids in education.

RECOMMENDATION

CAP would benefit from improving the mechanisms for monitoring the status of children and families within the CAP process and making such information available to CAP centres, CAP assessors and parents.

RECOMMENDATION

In order to ensure that there is a short time period between assessment and arrival of the aid there is a need to explore new ways of ensuring that signatures to individual assessment forms are collected as quickly as possible

RECOMMENDATION

Local CAP assessors would benefit from identifying and reporting the strengths and areas for change in the support that they have received from the different CAP centres. This information will enable CAP centres to understand the expectations of local assessors and help them to provide the best possible support.

RECOMMENDATION

It is recommended that the mechanisms and resources for supporting local CAP assessors are explored as a matter of priority in order to maintain and develop the good practice developed by CAP beyond the life of the project.

7.0 Post assessment and delivery of the aid

After an assessment the findings and recommendations are written in a report that is sent back to BECTA when all relevant parties have signed the appropriate forms. The information from the assessment is entered on database, the equipment sourced from BECTA's list of suppliers and the orders placed.

Delivery of the communication aid

CAP centre staff indicated that a communication aid was usually delivered to the school but there could be a variation on this pattern.

'Usually goes to the school and occasionally if we are going to do some training it will come here'. (CAP centre staff)

'During assessment we discuss where the equipment will turn up and who will set it up. . If no-one has expertise they will identify this at assessment time. Usually received in school'. (CAP centre staff)

The CAP assessors described a similar picture with 7 out of 12 of them indicating that the aid was delivered to the child's school. Two CAP assessors would ask for the aid to be marked for the attention of SENCO or an advisory teacher. Occasionally, it would be delivered to the child's home. If an aid was to be delivered to an individual CAP assessor it was because they will *'personalise it for the child'*.

7.1   Training teachers and therapists

BECTA has had a significant role in encouraging and supporting all schools to develop their IT skills. Schools and LEAs were encouraged to apply for funding from the New Opportunities Fund (NOF) to enable schools to identify their training needs and select appropriate training for their school in the ICT area. It was within this environment that CAP was developed. However, during interviews with CAP centre staff it was pointed out that some teachers may not have had the IT training that one would have anticipated. For example, the NOF training '*didn't happen for some unattached teachers in central support services – some services got onto it and managed it for the service. But lots missed out and didn't learn how to use some of the software*. (Cap Centre staff)

An increase in teachers' levels of confidence when dealing with IT would be beneficial for all children with communication aids. When children make a transition for example, from primary to secondary schools they have different teachers for each subject and it is vital that all the teachers are confident and comfortable in using IT and so are able to facilitate the child's use of their communication aid in their subject.

Also, if one teacher in a school has been trained to use a communication aid and they leave, then the remaining staff will not be able to support the new teacher who is working with a child and their aid. This can slow the child's learning because as Alant (2003) points out *'…teachers have to be guided as to how to move beyond just requesting the production of predetermined utterances [messages like words/phrases already stored in the aid] to use available communicative items in more creative ways and for more challenging purposes'* (p. 354).

However, it was acknowledged during interviews with CAP centre staff that is was a challenge for teachers and therapists to keep up to date with the AAC area. As one member of a CAP centre said:

'There are about 11 staff working in this complex area … full-time and even we are working to keep up to date with the new software and hardware…you can't expect teachers and speech and language therapists to have that range of knowledge. Part of our role is to select from that huge range and make them aware of the alternatives'.

7.2 Stakeholders and training

In an attempt to enable professionals and parents to support children in their use of communication aids training is offered at different stages in the CAP process. There are a number of stakeholders involved in giving and receiving training. These include the CAP centres, CAP contacts as well as the LEAs.

The 6 CAP centres offer a variety of training sessions for CAP assessors. The sessions are provided to develop or maintain knowledge and skills for assessing and supporting children who require communication aids. This training may be offered at a specific CAP centre as a day course or be provided at a mutually convenient place for CAP contacts:

'*I attended a training session, somewhere in the middle of the motorway'. (*CAP contact)

'People have come from the centre to train the CAP team especially for the OT and education staff. We have had modules on communication aids, accessing the aids and recording'. (CAP contact).

The CAP assessors who had attended CAP centre training sessions appreciated the training especially where it extended their knowledge because for example, *'they covered complex needs outside my field'.* Some CAP contacts reported receiving some individual training from CAP centre staff on completion of forms for referral and assessment.

Only two of the CAP assessors out of the 12 contacted had not attended any of the training offered by the CAP centres either because what was offered was not appropriate for their needs or the time was not convenient.

The CAP contacts who had attended training courses acknowledged that *'there is a huge diversity of knowledge amongst people on the training courses'*. It was felt that there was a need for *'general courses and then specific training for individuals'.*

Some CAP contacts have continued their professional development in the area of communication aids by taking formal qualifications, such as the AAC module, accredited by Manchester Metropolitan University. Others had developed their own expertise in a practical way:

'… having found three communication aids in a school cupboard and through "playing" was able to set them up to train individual student to use a dynamic screen, using them with both a switch and as a touch screen'. (CAP contact).

Following the arrival of a communication aid all CAP centre staff reported that where possible parents, school staff and any other interested parties were invited to attend training sessions. The *'…training depends on the equipment'.* (LEA Officer) and who does the training is influenced by '*who was involved with the assessment'. (CAP contact).*

If suppliers provided training, the stakeholders stressed that while the technical training was usually very good it did not personalise the aid to the needs of the child. One CAP assessor based in a residential school commented on the willingness of suppliers to come and train '*often on a Friday so that the parents can come and we involve the LSAs.*'

One CAP contact expressed concern about lack of support within an LEA to support software that could and should be used by many people in school, such as Clicker. If training was bought in from outside the LEA it could cost £500-600 for such training.

The CAP assessors organised training in a variety of ways. They would hold joint meetings or training sessions with the parents and school staff; use training by the supplier on general access to the aid and then they would do the specific training; train all the school staff and get the staff to then train the parents. Some CAP contacts invited parents to the school on a regular basis to keep them up-to-date while others provided support by telephone.

Role of LSAs and training

It was striking how often LSAs were referred to in relation to training sessions by all the stakeholders. It seemed that LSAs were more likely to attend training sessions than teachers.

'*The parents are invited and the LSA. We always invite the teachers but it can be a problem and we work so hard to get the teachers there*'

'*Realistically I train the LSA, and the teacher needs to know the aims for the classroom.*

The role of the LSA may be prominent because the majority of children (88% of the database) receiving communication aids have statements, which may indicate support from an LSA. One CAP contact had found that in her experience there was more likely to be an LSA available to help programme a communication aid in a mainstream school than in a special school.

7.3 Parents' views of the CAP process after the assessment

Parents were very positive about the assessment and recommendation of the aid. Their views (and those of the education staff interviewed) on contact with CAP, their own involvement and the co-ordination of the services are more mixed, focusing on the period after the assessment. The majority of their comments on these aspects of the process are concentrated on two issues.

The first is the timescale of the process which is reflected in answers relating to 'the co-ordination of the services and the second is the information on the process which was reflected in answers relating to 'contact with CAP' and 'own involvement'. The issue of the timescale was also highlighted in chapter 3 in section 3.4 and chapter 5 in section 5.2.

Figure 8 Parents' views on the CAP process

Bar chart legend: Very satisfied, Quite satisfied, Not satisfied, Not applicable
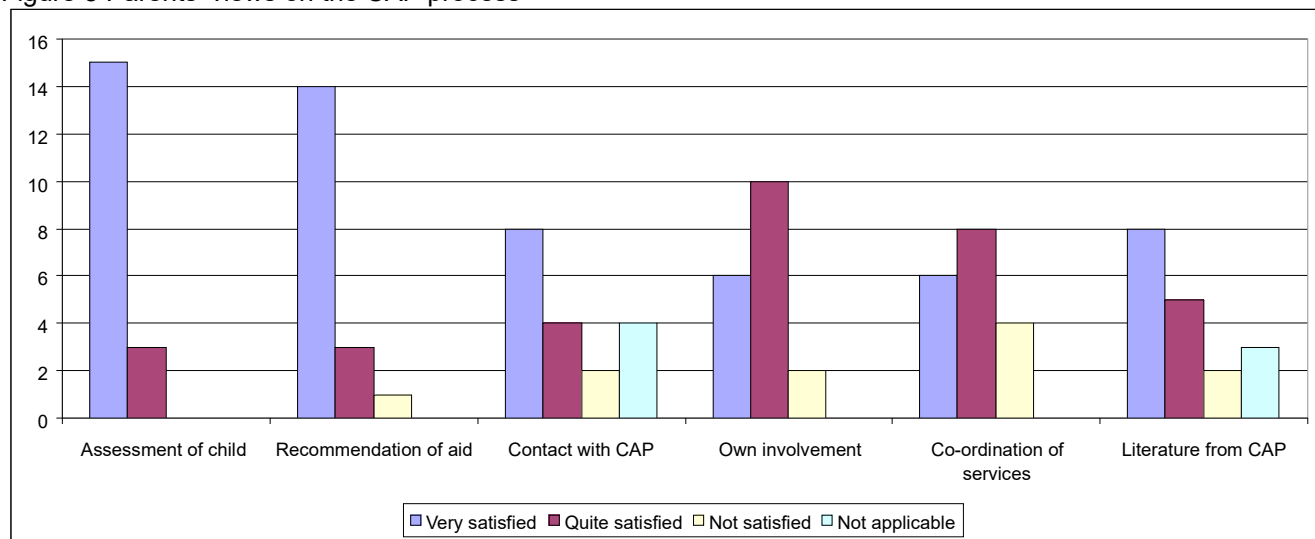
Timescale

One parent commented that the speed with which her child received the aid was the aspect of CAP with which she was most satisfied. Her child waited 8 months after assessment for delivery of her voice output aid and head switch control. Many more parents were not as satisfied as this parent: They were disappointed with the length of time the process took and that they were given no accurate indication (especially after the assessment) of how long they would have to wait for the aid. Education staff and Speech and Language Therapists also said that the process would be improved by more information on timescale. For example,

'once we've done assessments and were waiting it sometimes difficult to get information about how long we might have to continue waiting'. (SLT)

One child waited nearly 12 months after the assessment for the delivery of his voice output aid, and at his post-aid interview (5 months after the delivery of the rest of the aid) was still waiting for part of the equipment which will allow him to use it fully at school. There was no clear indication of when that part might be available. When this part arrives, this child will have waited over two years from initial application to full provision of the aid. His mother contrasted his situation with that of a sibling who had recently got a laptop for their academic work, which took only a week to deliver: '*these children are a bit penalised'*. She also said:

'There was a bit of a time delay between it being recommended and it actually turning up. We tried to ask what was going on, you know how long, but we didn't have a lot of luck in finding that out, or reasons for it.' (Parent)

Another child, though she had received her voice output aid, was still waiting 6 weeks after the pre-aid interview for issues with software and mounting of the aid to be resolved. This meant that she was not yet able to use the aid. She had already waited a year between assessment and the delivery of the aid. Having been assessed in January 2003, they had hoped that the child would have the aid ready to use by the start of the current academic year. Her teacher was particularly frustrated as she recognised how much the child will benefit from the aid because she currently finds school especially difficult. Her mother said:

'Whenever we contact the CAP centre they never seem to have a sense of how greatly this is needed by her… It was always going to be urgent, it was always high priority, it was always in the next month or 6 weeks and it never ever came by the deadlines we were given… ' (Parent)

Whilst acknowledging that provision of the aid may take time, especially in cases where its set-up is more complicated, those interviewed (both parents and teachers) commented that what would be most useful is a realistic indication of how long it would take to get the aid after the assessment.

'I didn't know how long the process will take cause we've never been through it, but if we've had some sort of bench mark to- so I would have known, oh well you should have had this equipment by such and such a time.' (Parent)

'realistic times... when we first spoke to them they were saying "you'll have it probably within six months" and then six months later "well it should be with you by the end of the year" and it just kept dragging and dragging so I think maybe realistic times and probably a bit quicker really.' (Parent)

Information

As well as information on the timescale of the provision of the aid, parents felt that more information on the whole process would be welcome, especially on insurance and back-up services once the aid had been delivered. On insurance, some parents commented on the difficulty of finding adequate cover for the equipment provided without any advice from CAP and that the rise in contents insurance premiums was very hard to meet for some families.

What many have found particularly difficult is that they did not know who to contact with any queries or problems they might have, both before and after the provision of the aid. Some parents commented that they felt they were too involved in the process because they had to phone CAP for updates on when equipment might arrive. For several parents the CAP process would be greatly improved if there were a named person they could contact who was overseeing the whole process for their child, from application to provision to training on how to use the aid.

'It's actually someone to actually grab it by the horns and actually take responsibility… A central co-ordinator I think would be ideal, who actually is prepared to do all the phone calls'. (Parent)

'I think it might be helpful if we had like a person that we could have contacted. We've had addresses and different people and that but we didn't actually have a person that you know we could contact each time if we had any problems'. (Parent)

'the impression I get is that there's someone who does the assessment and then the people that order it from central office… if there was like almost a person that was the direct communication link that would be brilliant… they could follow it through and progress it and you wouldn't be talking to different people every time with different answers....' (Parent)

'I think it probably needs someone to oversee the whole process and to be some sort of mediator over the referral, supply and delivery of the thing. And as a sort of back up, someone to fall back on, in case there's a problem… we don't know who to ask… even when it actually arrived there was still no-one to say "ooh yes well it's here now and we'll have to do this, that and the other to get it up and running." The person that took the initiative was the speech therapist.' (Parent)

When a Speech and Language Therapist was involved in the application and assessment, that person seemed by default to be the one who took the responsibility for chasing up when there were queries or problems or a delay in provision of the aid.

7.4   After the equipment arrives

Some CAP contacts reported an awareness of problems with aids where parents contacted the suppliers or the contact acknowledged that *'if there is a problem when I am in school I will try and fix it'* or '*If ports stop working on laptops they contact me'*.

One CAP assessor reported that within their LEA *'schools are expected to contribute the first £100 of any repair cost. I have only had one CAP repair enquiry to date and have operated the same requirement'.*

One person was pleased to report that when an aid was stolen it was replaced under the insurance. In another case the battery needed changing and *'as an authority we paid for this and the advisory teacher dealt with it'.* Whereas for a child who was not included in the study but had their aid stolen the parents did not know what to do as they cannot claim it on home insurance. They did not know what was going to happen now or who to contact in CAP about this.

7.5   Key Points
   • The views of the parents were mixed concerning the timescale of the process and information.
   • Training provided by CAP centres is valued and it was acknowledged that there was a benefit in having access to people who are experts in this field.
   • There is evidence that education and health staff are seeking further knowledge and skills in this area.
   • It is acknowledged that there is a need for child-specific guidance.

RECOMMENDATION
The identification of a key person to contact at a local level if unsure about an aspect of the CAP process would be an advantage for parents. This person could be identified at the time of writing the assessment report.

RECOMMENDATION
Where appropriate, recommendations should be made following assessment that supports the use of existing technology in school and/or introduce or improve the use of low-tech systems. This will provide parents and schools with opportunities to explore the use of alternative forms of communication before the technological aid is delivered.

8.0 The impact of a CAP communication aid

The parents, education staff and therapists reported that they were aware that if funding from CAP had not been available the children might not have been able to receive communication aids. Parents and children were positive about the provision of the communication aid. Parents saw the benefit of the aid for their child's experience in school and in extra-curricular activities as well as acknowledging that the provision of an aid raised their expectations regarding the use of the aid within the classroom.

The impact of a CAP communication aid was explored through interviews that took place with two groups of children, their parents, teachers and speech and language therapists. The first group consisted of 18 children who were seen in school at Time 1 and Time 2. The other group consisted of 12 children, who were at transition points in their schooling.

In this chapter the views are explored of those who were interviewed in the first set of case studies (T1 and T2 interviews); in the following chapter the views of those interviewed as part of the transition case studies are explored.

8.1   Views of parents, teachers and SLTs

In the following sections the views of the parents, teachers and therapists who were interviewed 'before and after' the communication aid arrived will be presented. Half of the parents interviewed after their child's communication aid had arrived, at T1, said that the aspect of CAP with which they were most satisfied was the fact that CAP had provided their child with a communication aid. This included parents of children who had previously been using an aid as well as those who before the provision of this aid had been using low-tech communication systems such as symbol books.

'With her other one you had to press about ten different buttons to get one little word out… [with the new aid] once you know how to do something it's easy to do it again… and to get out sentences'. (Parent)

'… it's the same like a symbol book, but it's much better, she can use that very easily.' (Parent)

'he kissed the box when it came out of the cupboard.' (Parent)

'he uses it all the time and he never really liked things like communication books or anything like that. But, you know, things like computers and computer games and the communication aid and all the rest of it, its like, you know, like boys with toys.' (Parent)

When asked if the child enjoyed using the aid*: 'absolutely, you haven't got the category that we need here: strongly, strongly, strongly agree' (SLT)*

Parents' reported that their children enjoyed using the aid and they found it easy to use. The patterns of their responses are shown in Figure 9.
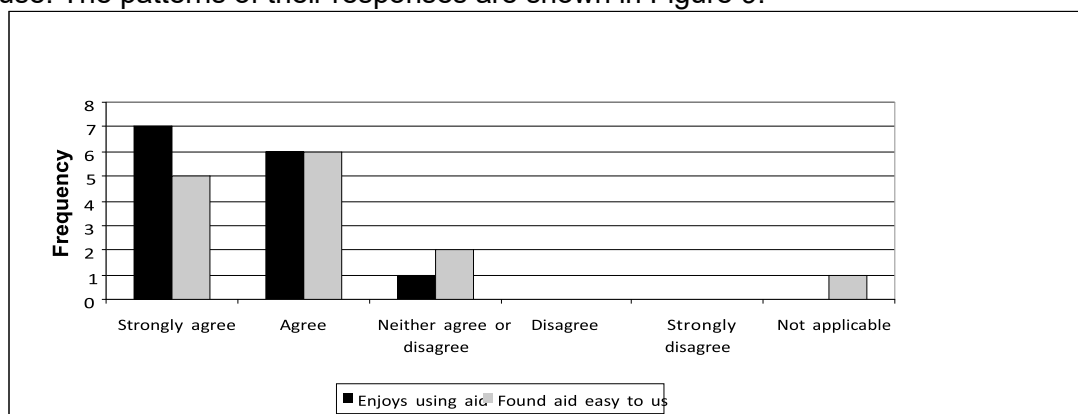

Figure 9 Parents' views on their child's use of the aid

It was widely recognised by parents, education staff and SLTs that funding from CAP had made it possible for children to have communication aids.

'We could never have got this communication aid for him if we hadn't had CAP to go to'. (SLT)

'I*f it was down to our LEA I don't think he would have got [a communication aid]. I think it might have been a fact of trying to part-fund it ourselves'.* (Parent)

To explore the impact of the communication aid on their child's life parents were asked questions about their child's social contacts at home and at school. The same questions were asked during the first and the second interview. In figure 10 their responses are shown when they agreed or strongly agreed with the statements.
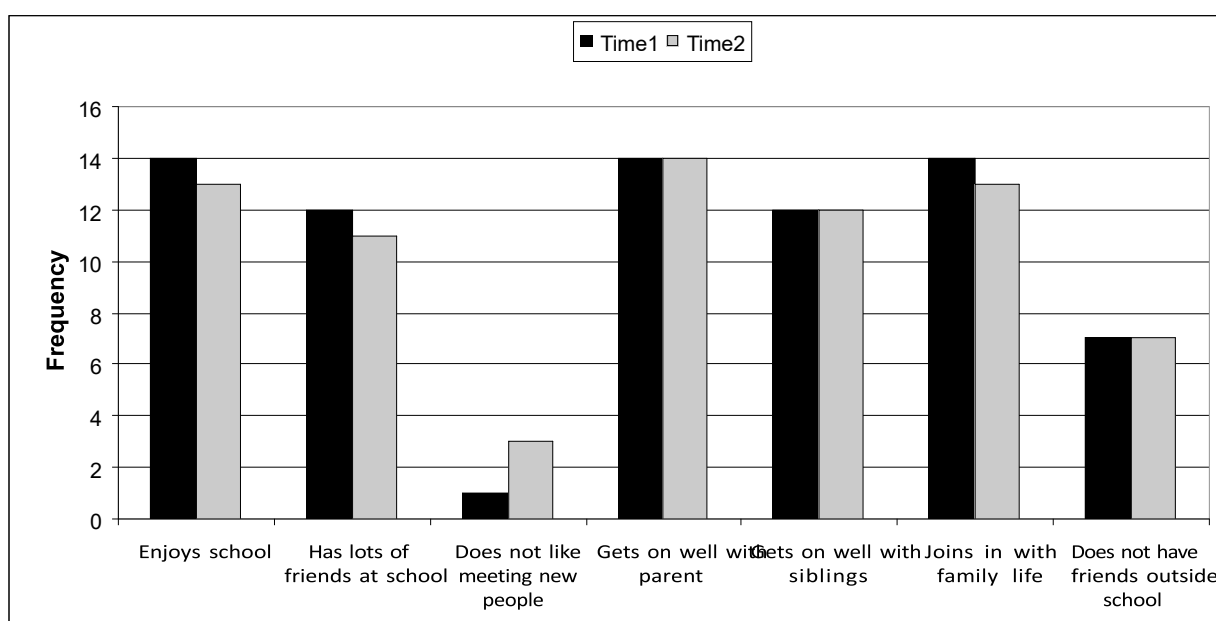
Figure 10 Parents' views on the quality of life indicators (strongly agree + agree) at T1 and T2

On the whole, parents did not report marked changes in their child's social contacts at home and at school, as defined by the quality of life categories used in the interviews. However, there were individual reports of changes in social interaction with peers and these are presented below.

Use of communication aid

Parents reported that children were using their aids for for schoolwork and for extracurricular activities. One parent of a child with profound hearing loss described how her daughter is using the DVD player on her laptop with her friends. Instead of renting videos which do not have subtitles on them, they are now able to rent DVDs which do have subtitles and which the group of friends can all watch on the child's computer.

Another child is using his aid to join in at the chess club at school:
'because he can't be as accurate sometimes as he'd like to be in moving a chess piece, he'll give somebody the location… so somebody knows exactly where he wants his piece moved.'

Having a voice output communication aid (VOCA), which also allows him to do written work, is enabling another child to correspond with friends via the Internet.

Involvement at school

Many parents and teachers have seen positive changes in children's involvement at school since having their communication aids.

'It means that she no longer has to have a classroom assistant sat next to her, the assistant sits at the back of the class, makes notes of the what the teacher is saying and emails or texts her'.

This enables this child to join in more fully with classroom activities rather than feeling isolated as she was before having the aid.

Education staff were asked about the ways in which children interacted with others and dealt with school life before and after they had the communication aid. Their responses are shown in figure 11
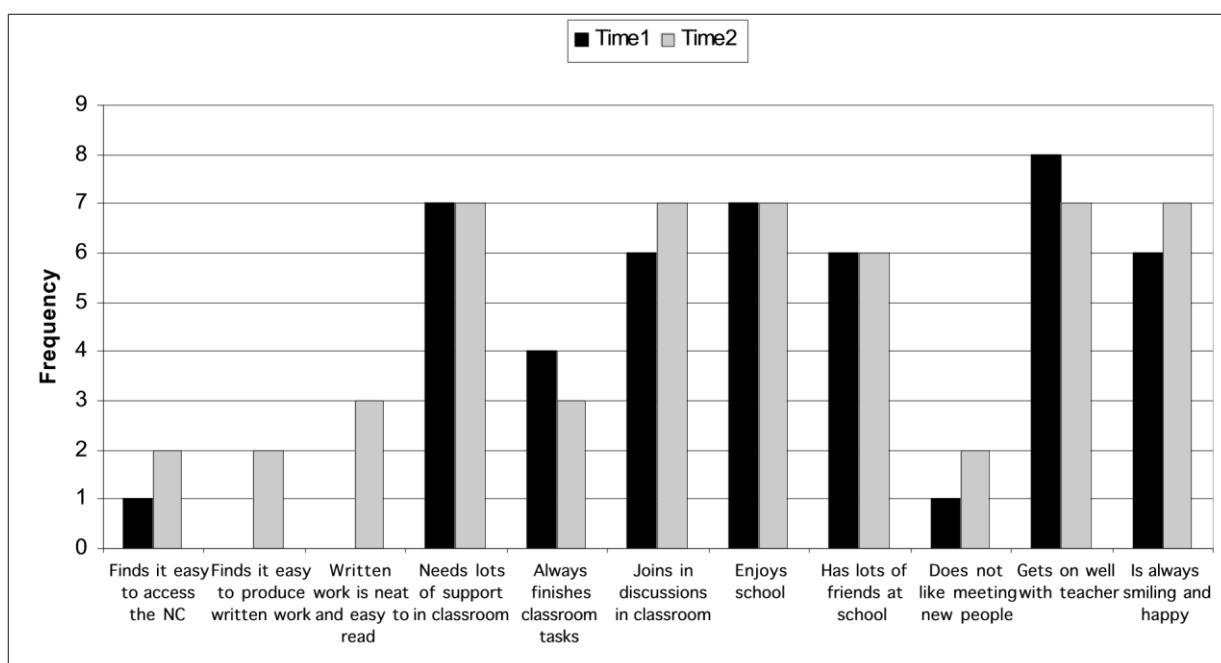
Figure 11 Education staff views on the quality of life indicators (strongly agree + agree) at T1 and T2

There were no marked changes in the views of the education staff about the children's quality of life between the two time points. This may be due to the short time scale between the two interviews. However, at an individual level staff reported a positive impact on children's participation in learning experiences.

For example, one child has been able to take part in discussions in the classroom much more actively since receiving her communication aid. Her teacher said she has been very motivated to use the aid and whereas before having the aid they relied on yes/no questions to communicate with her:

'it's opened up the way that we can question her or she can ask things of us. It's had a big impact on that... She can contribute a lot more to the discussions in lessons and then actually ask if she hasn't understood anything: she'll stop us and question us on the point'. (Teacher)

The class teacher working with another child has found the new aid to be particularly useful in small group work: *'when it's a whole class I tend to give him advance notice of the questions so he's got time to think and to respond, whereas in a small group you haven't got that the same. So this aid's really been good because the bank of words is already there and he can access it quite easily and he's done it before you're ready for him really… He tried before [to take part in class activities] but it was just the time factor really… And it's not so obvious to the other children: 'oh well we've got to wait now because it's his turn. It flows much better….'* (Teacher)

The LSA working with one child described how having a VOCA has helped tremendously in increasing his contributions to class discussions: *'he's confident to dive in with the answers now.'* The LSA also commented on his increasing confidence in all situations including talking to new or unfamiliar people, which he would never have done before he had the aid. The views of education staff on the children's response to the communication aid can be seen in figure 12.
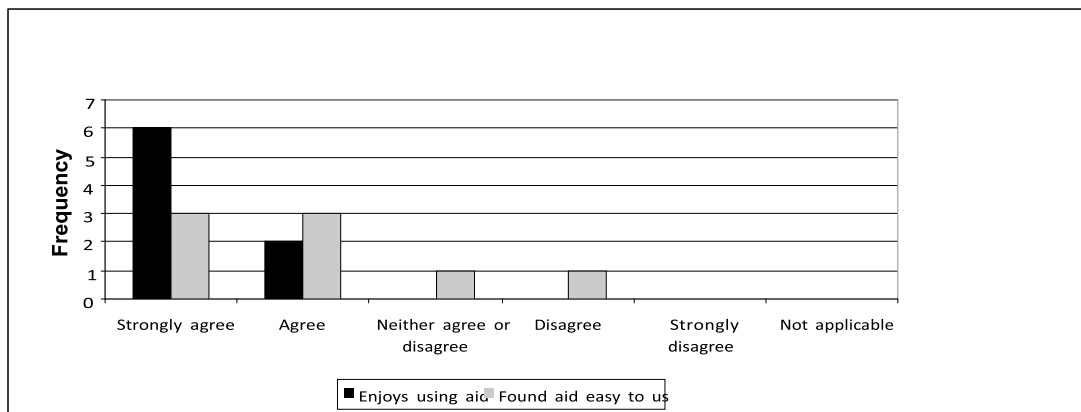
Figure 12 Views of the education staff on children's response to the aid

Figure 13 Impact of a communication aid

Paul has been provided with a Dynamyte by CAP. Previously he was using symbols and a communication board and book, with some gestures and vocalisations. Professionals working with Paul recognised that this was not the optimal communication system for him. Since receiving the Dynamyte he has been using the aid to talk to the teacher and friends at school and to plan work at school. His mother commented that he has enjoyed using the aid particularly as he can make up his own sentences on it. The teacher interviewed reported that those working with Paul had found it easier to include him now in a range of classroom activities. She said '*It's quite a success story I think.*'

Paul's Speech and Language Therapist also commented on the difference having the Dynamyte has made to Paul. He has become *'more vocal'* since receiving the aid, an increased confidence which the SLT suggested is due to the fact that if he is not understood now he can fall back on the Dynamyte. He has benefited from his aid

> *'enormously and in lots of ways that we didn't expect in that you know he's become much more confident and much more willing to initiate… [before] he would answer questions and do as he was asked but he didn't really volunteer a lot… he doesn't particularly want to come out in a one-to-one any more now because he sees himself as just one of the other children which is good.'*

The views of the speech and language therapists that were interviewed about the children's response to the aid are shown in the following figures.
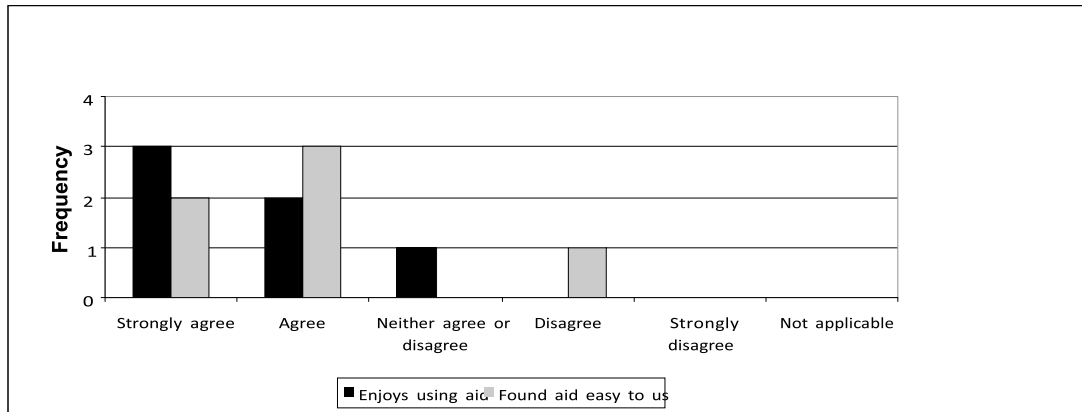
Figure 14 Views of the SLTs on the children's response to the aid
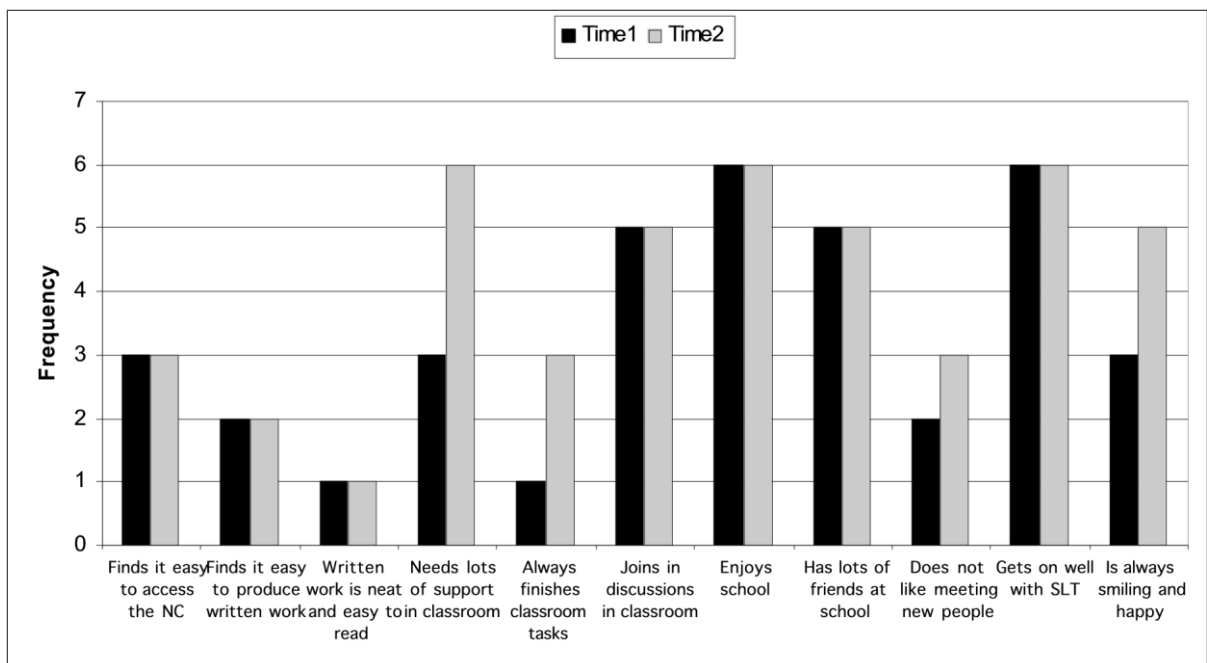
Figure 15 SLT views on the quality of life indicators (strongly agree + agree) at T1 and T2

There is little change in the SLTs' views on the children's quality of life between the first interview and the second interview apart from the fact that they reported that some children needed more support in the classroom in these early stages of using the communication aid.

Education staff's and parents' expectations

The benefits of an aid which individual parents have seen outside school and which are possible in the school setting has inevitably raised parents' expectations

regarding the use of the aid in the classroom. This has introduced new challenges for classroom staff as they manage parents' expectations as well as seek to integrate the use of the aid into classroom work.

One of the children included in this study used a symbol book before receiving his communication aid. His parents have been very keen that the new aid be used fully in the classroom. Though she is familiar with communication aid technology, the class teacher involved has struggled with this piece of equipment, as she has not yet had training. She also commented that it would have been helpful to her particularly if she had been involved in discussions before the aid arrived on how it might be integrated into the classroom. She said:

'I don't feel there was any real consultation with other teaching staff or myself… if we're being expected to use it in the classroom which is what we are now, under a lot of pressure from parents… wasn't actually consulted as to how it was going to be used or what would be the best system for us, it really was like landed on us.'
(Teacher)

It is an important point to note that some teachers stated that they would have liked to have been involved more at the assessment, to discuss use of the aid in the classroom. Many felt they needed fuller training on the aid, but it was apparent that it was not always possible to release teachers for training. Others had been involved in the initial training on the aid but now needed further training. In the following section further issues related to training are addressed.

Training
Information from those interviewed for this study indicates that the number and role of those involved in the initial training varies, often apparently depending on the type of aid. For children who have received laptops, training involved the child, the SENCo or specialist teacher such as Teacher of the Hearing Impaired and possibly a parent. When the new aid was a VOCA, parents and children were trained with a Learning Support Assistant and usually the SENCo or specialist teacher rather than any class teachers. In one case the school specifically decided to train the child's one-to-one support worker and the school's computer technician.

Accessing further training
While those involved were usually very happy with the initial training they had received, many recognised the need for further training once the child had started using the aid. In some cases this had been planned for at assessment; for others they had to enquire about further training opportunities. One specialist teacher was aware of her need for further training, as she felt she was not yet making the best use of the aid, but was unsure about what would be the most helpful or how she could find out about it: *'this has been a very steep learning curve for me, and we do get a certain amount of training that goes with this and that's fine. I just wondered if there was anyway that it could be more open ended… I feel like I know so little about computers that I don't even know what I need to fin out'.'*

Even when the nature and source of the training were clearer, there was still some uncertainty about how and when to access funding for further training.

'there was some funding available for training and there this strange currency they then devised, I don't know whether that's still the case, we weren't sure how to access that and when to access it in the process, so that was a bit muddled, and I don't know, I still don't know the answer to that, because probably it would have been

a good idea to access it for him if its still available, but we weren't sure how to go about it really.' (SLT)

Sharing expertise

Other teachers expressed a desire to make links with other professionals working with communication aids to share experiences and expertise.

Figure 16 Sharing expertise

After previously using communication books and an Alphatalker, Alayna was provided with a Pathfinder by CAP. Those involved with Alayna are very satisfied with the aid and the progress she is making, though it has been a 'big learning curve' for them all. She is currently using the aid purely as a voice output aid, but the teachers involved are aware that it could be used for recording work and therefore be integrated more fully into all Alayna's schoolwork. The teacher interviewed felt that the contact they had already had with other professionals in the field through CAP had been useful. She suggested that it would be helpful to have groups for sharing ideas amongst education staff from different schools on how VOCAs such as the Pathfinder might be used, sharing from experience what has and hasn't worked across different subject areas: *'because it's everybody's confidence that's important really, not just Alayna's'*

In another area, professionals are planning to set up a support group for classroom assistants who are working with children with VOCAs. Recognising that assistants are scattered around the district in different schools and that it can be quite daunting to start work with a communication aid, *'we thought it would be quite nice for them to meet up and some are further down the line than others so that they can exchange ideas and have a chat about what's worked for them.'*

Summary

The requirement for additional training is recognised by CAP and has been expressed unequivocally by parents and professionals. It would seem that the professional networks developed through CAP, suggest that CAP is well placed to respond to the needs of parents and professionals in the exploration of innovative models for training and the review of outcomes, beyond the basic functional training provided currently.

Given the small sample and the short period of time between the first and second interview it is not surprising that the standard measures used in the questionnaires reveal no clear impact from the communication aids on the quality of life indicators. However, the individual accounts from parents, teachers and speech and language therapists provide evidence that a communication aid has had an impact on individual children.

In section 8.2 the views of the children are presented.

8.2   Children's perspectives

A central aspect of this evaluation study and a significant challenge for the research team was to explore the views of children receiving CAP funded communication aids. There was particular interest in examining the impact of the communication aid on children's learning and participation in school and what impact a communication aid may have on aspects of their quality of life. This section presents the findings from the interviews with the children who were interviewed before and after receiving their CAP communication aid. Eighteen children were interviewed before they received

their communication aid (T1 interviews) but unfortunately by the time the second interviews were due to take place 4 children had not received their communication aids and therefore it was inappropriate to interview them again.

The research used an individual case study approach to explore children's views about specific communication-based activities and related quality of life issues that they identified as relevant to their own experience. The range in variety of children's experiences of communication difficulties is marked and consequently there is an inherent difficulty in aggregating data across individual cases. Nevertheless, some common trends are apparent and this section presents a summary of the findings from the group of 14 children, with 4 detailed case studies to illustrate some common themes. The case studies also provide more details of the young people in mainstream and special schools who have been provided with VOCAs and aids to support literacy. In order to maintain the children's anonymity all names have been changed.

The children that were interviewed included those who had not had a communication aid previously like the case study children, Kevin and Alexander as well as children like Amy and Maya, who needed a new aid in order to function effectively in school.

In the sample most young people identified positive changes in the indicators of quality of life that they had identified as relevant to their own experience. There was a variation in the number and type of changes experienced with some children reporting many changes while others reported fewer changes. This variation in the pattern of responses is an important point to bear in mind when thinking about the ways in which children and families are prepared for the delivery of an aid. Every situation and family is unique and children and parents will have a variety of expectations.

Professionals working with families need to be aware of the possible expectations that parents and children may have when they are going to get a communication aid. One important point revealed by several children that were interviewed such as Alexander, was that while an aid may reduce feelings of frustration these feelings do not disappear.

The interviews with the children in this group revealed that after receiving their CAP funded aid there was a general trend towards a reduction in the severity of problems that they experienced. This response is particularly encouraging bearing in mind that the second interviews took place a minimum of 6 weeks after the young person started using their communication aid.

The changes in the judgements of the children about the severity of the problem that they had identified between the first and second interview are shown in Figure 17. The horizontal axis represents the number of quality of life indicators described as big problems at T1 and T2.
Reductions in the problems experienced are seen across all indicators. The children most frequently cited the amount of effort exerted in communication as their chosen/most significant problem. For many children there are marked reductions in feelings of embarrassment and frustration and in the fact that other people think the communication aid user cannot help them.

Figure 17: Changes in reported quality of life indicators for issues described as big problems

The chart "Quality of Life Indicators" (y-axis) plotted against "Frequency" (x-axis, 0 to 9), with two series T1 (black) and T2 (grey):

- I feel embarrassed: T1 = 4, T2 = 1
- I am frustrated: T1 = 4, T2 = 1
- I can't be in control
- I don't have a voice: T1 = 3, T2 = 2
- I can't show the real me: T1 = 2
- Others think I have nothing to say: T1 = 2, T2 = 2
- I'm treated like I'm stupid: T1 = 2, T2 = 1
- I'm treated like a baby: T1 = 3, T2 = 1
- Others think I can't help them: T1 = 4, T2 = 1
- Others do for me: T1 = 3, T2 = 2
- Normally I need lots of help: T1 = 6, T2 = 2
- It takes lots of effort: T1 = 8, T2 = 5
- It takes too long: T1 = 3, T2 = 2
- Others don't know how I communicate: T1 = 2
- I can't show my abilities: T1 = 1

Kevin

Background

Kevin is a young person with Cerebral Palsy. His physical difficulties are such that he experiences significant difficulties producing intelligible speech. He also has difficulty walking and uses a wheelchair. He is 10 years old and attends his local mainstream primary school. An application to CAP was led by his speech and language therapist and other members of the team included his occupational therapist, head teacher, class teacher, SENCO, LSA and his parents. At the time of the application Kevin did not have a communication aid and the application was made to explore options for supporting Kevin's social interaction and written work. CAP received the referral in April 2003.

Assessment and provision

An assessment of communication technology options was carried out in July 2003, three months after CAP received the referral. The regional CAP Centre led the assessment and involved staff from a local CAP assessment team, Kevin's speech and language therapist, occupational therapist and LSA. A *DynaWrite* (pictured below) was recommended. By using the standard keyboard this device can generate spoken or text output. The device has a number of features that supports communication through text including, for example, word prediction. During the assessment a need to train Kevin's parents and classroom staff was recognised. It was agreed that the speech and language therapist from the local CAP assessment team would conduct the training. It was agreed also that local non-CAP arrangements would be made for loss or damage to the equipment.

Figure 18 DynaWrite

Kevin received his communication aid in October 2003, three months after the assessment and six months after CAP received the referral.

Interview

At the time Kevin was first interviewed he had been in possession of his Dynawrite for two weeks. Kevin identified five relevant communication based activities, and his views concerning the difficulty and importance of these activities are presented in table 17. Kevin identified asking questions and answering questions as activities with which he experienced difficulty. He also identified these as important activities and ones he wished to do well. His expectations were that these would become easier in time through the use of his communication aid.

Table 17 Kevin's views concerning the difficulty and importance of five relevant communication based activities

Activity	Difficulty at T1	Importance	Expectations for change in difficulty	Change in difficulty at T2
Talking in front of class	Easy	Important	Get easier	Decrease
Telling news	Easy	Important	Get harder	Decrease
Talking in groups	Easy	Neutral	No change	No change
Asking questions	Difficult	Important	Get easier	Decrease
Answering questions	Difficult	Important	Get easier	Decrease

Kevin chose to discuss the issue of answering question in more detail, as this was an activity he found difficult but that was important. He identified a range of quality of life issues that were relevant to his own experience when answering questions. These are presented in table 18. They include a number of factors related to competence in communication that he identified as big problems, such as, the amount of time and effort it takes to answer questions; the fact that he needs a lot of help. A range of factors related to Kevin's self-esteem were identified as big problems for him. They included issues such as, having no voice, being treated like a baby and feelings of frustration.

At his second interview six weeks later, Kevin reported experiencing less difficulty in all but one of the communication-focused activities identified at his first interview (see

table 17). Equally, when considering the specific activity of answering questions Kevin reported a reduction in the extent to which each quality of life indicator chosen at the first interview was still a problem. For example, Kevin indicated that he was now more able to show his abilities; that he had more of a voice and that feelings of frustration had reduced. Interestingly, he also reported reductions in what he had identified as smaller problems such as "others talk for me", and "other people not knowing how I communicate".

Table 18 Kevin's quality of life issues that he identified as relevant to his own experience.

Answering questions	Problem at T1	Change at T2
Competence		
Others talk for me	Small	Decrease
Others don't know how I communicate	Neutral	Decrease
It takes lots of effort	Big	Decrease
It takes too long	Big	Decrease
Normally I need lots of help	Big	Decrease
Self-esteem		
Others think I have nothing to say	Big	Decrease
I can't show my abilities	Big	Decrease
Others think I can't help them	Big	Decrease
I have no voice	Big	Decrease
I'm treated like baby	Big	Decrease
I am frustrated	Big	Decrease

Overall, following the introduction of his CAP funded communication aid Kevin reported a positive change in his ability to carry out a range of everyday school activities, and many positive changes in a wide range of quality of life issues.

Amy
Background
Amy is a 12 year old girl who attends her local mainstream school. She has a profound bilateral sensori-neural hearing loss, which means she has very significant difficulties in hearing. She has benefited from shared access to a laptop computer to support her with written work in school and her homework. However, at the time of her referral to CAP the laptop was described as very old and slow, and unable to support most of the newer software aimed at supporting children like Amy. School staff also reported concerns that Amy's difficulties were having an impact on her selfesteem.

An application to CAP, led by Amy's teacher of the deaf, and supported by her head teacher and her parents was received by CAP in February 2003. The referral team wished to explore communication technology options for supporting her development of written language.

Assessment and provision

A CAP assessment was arranged for Amy at school, and took place 3 months later in May 2003. The assessment team recommended that Amy would benefit from a new laptop computer with a CD writer/DVD. A range of software was recommended including, for example, *Co: Writer 4000* word prediction software. The assessment also proposed that CAP provide an additional battery supported remote monitor. In this way Amy could sit with her peers in class while her learning support assistant could sit in another place in the classroom taking notes, which would appear on Amy's screen for her to read. A digital camera was also recommended to record Science experiments. Although the assessment considered Amy's use of a *Textphone* it was not recommended this time. Amy received her equipment in July 2003, approximately five months after CAP received the referral. Unfortunately she experienced some problems with her equipment. This was sent for repairs but despite the diagnosis of a relatively simply battery problem the device was not returned for one month.

Interview

At the time of Amy's first interview she had been using her new communication aids for two weeks. She identified six activities that she recognised as relevant to her everyday school experience, and her views concerning the difficulties she experienced with each of these activities how important they were for her are summarised in table 19.

Table 19 Amy's views concerning the difficulty and importance of six relevant communication based activities

Activity	Difficulty at T1	Importance	Expectation for change in difficulty	Change in Difficulty at T2
Spelling	Easy	Important	No change	No change
Punctuation	Easy	Important	No change	No change
Planning	Easy	Neutral	No change	No change
Writing	Neutral	Important	Get easier	No change
Handwriting	Neutral	Important	Get easier	Decrease
Drawing	Neutral	Not important	Get harder	Decrease

Overall, Amy reported fairly mixed views concerning these activities. For example, she identified spelling and punctuation as easy and important, and she did not expect these to change. She expressed neutral views concerning the difficulty of writing (composition) and handwriting (including neatness of work) and these were rated as important issues for her. She anticipated that these activities would get easier. Interestingly, drawing, an activity she rated neutrally in terms of difficulty and as unimportant was expected to increase in difficulty in time.

Amy chose to talk in more detail about spelling, an activity she reported as an important activity but one she experienced little difficulty with. When presented with a range of quality of life indicators relevant to that activity she reported that she recognised one issue: 'not being able to show the real me' as relevant to her own experience, and that her expectation was that this would become less of problem for her in time.

Amy's views, reported six weeks later, are summarised in table 19. It appears that although she expected writing (composition) to become easier she reported no change. In the activities of handwriting and drawing improvements were reported. More specifically Amy said she was pleasantly surprised at her ability to type quickly, and that she had been working with school staff to prepare and use the laptop for a range of different subjects and for use with the Internet. Amy also remarked that she used the laptop much more than she had expected to at school and at home, for homework and to communicate with her LSA.

An unforeseen outcome was that she required time to print work out and to set up equipment in the morning before class. When asked to consider whether the issue of: 'not being able to show the real me' had changed in the time between interviews Amy reported that this had not changed.

Following the provision of her new communication aid Amy has reported some positive changes in her ability to carry out certain activities in school. Although she maintains that she has problems in being able to 'show the real me', she has said that she is surprised at how useful the communication aids are proving in a range of contexts.

Alexander
Background
Alexander is 13 years old. He has specific difficulties with using the written word. For Alexander this means that although he is achieving well in many areas of the curriculum he really struggles to read and write. At the time of his application to CAP he had not received support for assistive technology from his local authorities and his parents and school staff were concerned that he was at a high risk of failing to meet his potential. The application to CAP was made in February 2003, and was led by his father with support from Alexander's form teacher and the school SENCo.

Assessment and provision
Alexander was assessed in July 2003, five months after the initial referral. The assessment was led by two assessors from a CAP centre and involved Alexander's father, the Head of Special Needs and a special educational needs teacher from his school. The assessment made a recommendation for a notebook computer with specialist software to support his literacy.
Interview
At the time at which Alexander was first interviewed he had been in possession of his communication aid for one week. Alexander identified six literacy-based activities that represented everyday school events for him. He rated the difficulty he felt he experienced in conducting these activities, and his opinion concerning the importance of each activity. His opinions are summarised in table 20. He reported mixed views concerning the difficulty of the activities. For example, Alexander found planning relatively easy and gave a neutral rating for its importance to him. In contrast spelling and punctuation were difficult and he viewed these as important activities. Despite taking possession of a new communication aid Alexander expected that it would not make a difference to the degree of difficulty he experienced in carrying out the activities. An exception to this view was seen in his expectation for a positive change in punctuation, which he thought would become easier.

Table 20 Alexander's views concerning the difficulty and importance of six literacy based activities

Activity	Difficulty at T1	Importance	Expectation for change in difficulty	Change in difficulty at T2
Planning	Easy	Neutral	No change	No change
Drawing	Easy	Not important	No change	No change
Writing	Neutral	Important	No change	Decrease
Handwriting	Neutral	Important	No change	Decrease
Spelling	Difficult	Important	No change	Decrease
Punctuation	Difficult	Important	Get easier	Decrease

It was decided that spelling, an activity he described as difficult but important, could be explored in greater detail. Alexander was presented with a range of quality of life indicators from which he identified issues that were relevant to his own experience and those that were not. Of those he recognised as relevant he rated the degree to which they represented a problem. His views are presented below.

Relevant issues for Alexander included those in the area of communicative competence and self-esteem. In the area of competence, Alexander recognised that other people might do his spellings for him and that he does require help from others with spelling. In the area of self-esteem he identified as relevant the feeling that he is treated as if he is stupid; feelings of embarrassment and frustration. Although recognised as relevant Alexander gave a neutral rating for the degree of difficulty they represented.

Alexander was interviewed again eight weeks later. He reported that writing, handwriting and spelling had become easier, despite his expectations that he would experience no change, and that spelling had become easier as he had anticipated. He was surprised that his communication aid had helped more in lessons such as biology and physics, which require a lot of writing.

Table 21 Alexander's quality of life issues that he identified as relevant to his own experience.

Spelling	Problem at T1	Change at T2
Competence		
Others do it for me	Neutral	Decrease
Normally I need help	Neutral	Decrease
Self-esteem		
I'm treated like I'm stupid	Neutral	No change
I feel embarrassed	Neutral	No change

I am frustrated	Neutral	No change

When asked to think again about the quality of life indicators chosen at the first interview Alexander indicated that issues concerned with self-esteem had not changed. He experienced similar feelings about being underestimated and feeling of embarrassment and frustration. However, he relied less on others to correct his spelling or to spell words for him.

Maya

Background

Maya is 14 years old. She has Cerebral Palsy and experiences significant difficulties generating functional speech. She also has great difficulty walking and uses a wheelchair to get around. Maya attends a special school for children with physical disabilities. Nearly three years after the initial request Maya's LEA provided her with a voice output communication aid, (an *Alpha Talker*), and a PC to support her spoken interaction and access to the National Curriculum. In Maya's application to CAP in December 2002 school staff reported that the *Alpha Talker* was no longer meeting her needs, and that no further funding was available from the LEA. At the time an application was made to CAP her communication aid was four years old The application to CAP was led by her form teacher and supported by health and education staff working in school, who described Maya as a motivated but frustrated young person.

Assessment and provision

Maya's CAP assessment was conducted in school in July 2003, seven months after the referral to CAP. The assessment involved a specialist teacher from the regional CAP Centre, local CAP assessors and a physiotherapist and communication assistant from Maya's school. Following the assessment a recommendation was made for a *Pathfinder* communication aid (pictures below), plus suitable mounting equipment to secure the device to her wheelchair and position it in a way that she can access it with greatest efficiency.

Figure 19 Pathfinder

At the assessment it was agreed that the speech and language therapist from the local CAP assessor team would provide training for school staff and Maya's parents. It was agreed also that funding for an extended warranty for the *Pathfinder* would be organised outside CAP provision.

In December 2003, five months after the assessment, and eleven months following the initial application to CAP, Maya's communication aid was delivered. Unfortunately the mounting system was not provided with the communication aid. Consequently, although Maya was able to access her aid she was unable to make best use of it at that time. The mounting system arrived in March 2004.

Interview

When Maya was interviewed for the first time she had been in possession of her communication aid for 2 weeks. Maya identified six events that reflected her everyday activities in school. Her views concerning the relative difficulty of these activities, and how important she felt they were to her, are presented in table 22.

Table 22 Maya's views concerning the difficulty and importance of six activities

Activity	Difficulty at T1	Importance	Expectations for change in difficulty	Change in difficulty at T2
Joking / teasing	Easy	Neutral	No change	Decrease
Answering questions	Neutral	Important	No change	No change
Asking questions	Neutral	Important	No change	Increase
Talking in front of class	Neutral	Neutral	No change	No change
Telling news	Difficult	Not important	No change	No change -
Talking in groups	Difficult	Important	Get easier	Decrease

Maya gave a range of opinions concerning these activities. Interestingly, she identified joking / teasing as something that was easy and was rated as neutral in terms of its importance. She did not expect this to change over time. The activities she found most difficult were 'telling news' and 'talking in groups'. She indicated that telling news was not a particularly important activity for her but that talking in groups was important, and it was this activity that was chosen to discuss in more detail.

When presented with a range of quality of life indicators and asked to consider their relevance to her own experience in the context of talking in groups, Maya identified 11 issues presented below. Although a number of factors associated with communicative competence were identified as relevant problems, these were rated as less significant difficulties than factors associated more directly with self-esteem. For example, the issue 'normally I need lots of help', although recognised as matching her experience in talking in groups was rated as a relatively small issue. The greatest difficulty was that concerned with the amount of effort involved in talking in groups. Maya identified a number of issues in the area of self-esteem as big problems, including feelings of not having a voice, being treated as stupid and feelings of frustration and embarrassment.

Maya was interviewed on a second occasion six weeks later (T2). When asked to reflect on the impact of her new communication aid on the activities identified at the first interview she identified no change in level of difficulty in answering questions, talking in front of class and telling news, and this matched her expectations for change in the short term. Interestingly, she perceived the ability to ask questions, an activity identified as an important one to her, had become more difficult in the intervening period. However, she reported an unexpected increase in her ability to joke and tease with others. She also reported improvements in her ability to talk in groups, an activity she had identified as difficult but one that was important.

Table 23 Maya's quality of life issues.

Talking in Groups	Problem at T1	Change at T2
Competence		
Others don't know how I communicate	Small	No change
Normally I need lots of help	Small	No change
Others talk for me	Neutral	Decrease
It takes too long	Neutral	No change
It takes lots of effort	Big	No change
Self-esteem		
Others think I have nothing to say	Small	Decrease
I can't show my abilities	Neutral	No change
I don't have a voice	Big	No change
I'm treated like I'm stupid	Big	Decrease
I am frustrated	Big	No change
I feel embarrassed	Big	Decrease

When asked to look again at the quality of life issues an interesting picture emerged. For seven of the issues no change was reported. So, for example, Maya experienced similar levels of frustration at the time of the second interview. However, she indicated a reduction in the problem of other people talking for her, and other people thinking she had nothing to say. Significantly, she also reported a reduction in the issues she previously rated a big problems including being treated as stupid and feelings of embarrassment.

These interviews enable the children using communication aids to identify the problems that they experienced in their lives. There are some common themes that are useful for all those working with and supporting children with communication aids. But the findings from these interviews reinforce the individuality of the children that were interviewed as part of this research project.

8.3 Key points

- Parents, education staff and speech and language therapists acknowledge that if funding from CAP had not been available, many of the children might not have been able to receive communication aids at all. Parents reported strong positive views concerning the provision of a communication aid for their child, although, in the before and after interviews no notable positive changes to quality of life measures were noted.
- Children receiving communication aids reported positive changes in their functional abilities and quality of life. For example, some of the sample reported a decrease in feelings of embarrassment, frustration, and being treated like a baby.
- A communication aid may reduce feelings of frustration but these feelings do not disappear.

- There was a variation in the number and type of changes experienced by children as a result of receiving a communication aid. This has to be remembered when working with these children.
- The perceived benefits of the aid outside school which many parents report have raised expectations regarding the use of the aid within the classroom. This has introduced new challenges for classroom staff seeking to manage parents' expectations and integrate use of the aid into classroom work.

RECOMMENDATION
Parents, professionals and children would benefit from improved opportunities for training and guidance. A review of the policy of providing basic functional training only is warranted.

RECOMMENDATION
CAP has provided many children with communication aids that have improved the quality of their lives and improved their access to the curriculum. Parents have been very appreciative of the CAP provision. It is recommended that further funding is sought in order to extend the life of the project.

9.0 Transition

The impact of a communication aid at a transition point in education was investigated using interviews with a sample of 12 children, their parents and teachers and speech and language therapists.

Children can be involved in the transition process at many stages in their educational career. The most common time is when they transfer from primary school to secondary school. However, children face changes when they move from infant to junior school, from a special school to mainstream school and also when they move from school to post-16 provision (e.g. college) and become the responsibility of the adult health services. All these moves require preparation, discussion of concerns, planning and support.

The move from primary school to secondary school can be a challenging time for any child and this may be for a range of reasons including for example, the size of the school, the increase in the number of pupils and in the range of subjects, the children may move rooms more than they did in primary schools and they are meeting new people and making new friends. When children transfer at Key stage 2 there is concern that information about pupils' personal and academic details should move smoothly from one school to the next as well as an acknowledgement that there is a change in teaching and learning style (DfE 2001).

The stress involved in transition may be exaggerated for children with special educational needs. The Skills project (2002) stresses the need for effective support for transition from one type of provision to another when people have profound and complex learning difficulties. In order to meet their changing needs young people who use AAC and their parents have expressed a need for ongoing assessment and clearer information on choices and funding opportunities (RITE Project http://www.darefoundation.org/html/rite).

It was reassuring to find that in the interviews with CAP centre staff, CAP assessors and LEA officers that everyone was clear that if a child changed schools the CAP aid went with them thus ensuring a level of continuity for the child. However, it is important that information about CAP and the communication aid is passed to the new school so that teaching staff in for example, a secondary school are not reliant on the parents to explain how an aid works. It is also possible that unless it is thought about in advance the change of teaching style that can occur in a secondary school may not accommodate the communication aid. For example, the difference in seating arrangements and time the teacher can devote to incorporating the aid within lessons can create a problem for the child.

When a young person reaches school leaving age they become the responsibility of the adult services and so they experience another transition. This time it is happening within the health service as they may be seen by the adult speech and language therapy service rather than the paediatric speech and language therapy service. Although the therapist in the adult service will probably not have been involved in the original application/assessment for an aid they are likely to be involved in supporting the young person's use of the aid. They may have to sort out any problems that arise or follow-up any equipment that has not arrived. There is also the significant issue that if a young person requires a new communication aid there is no funding for such an aid in Further Education.

9.1   Parents' and teachers' perspectives on transition

Figure 20 Parents' views on the CAP process at transition
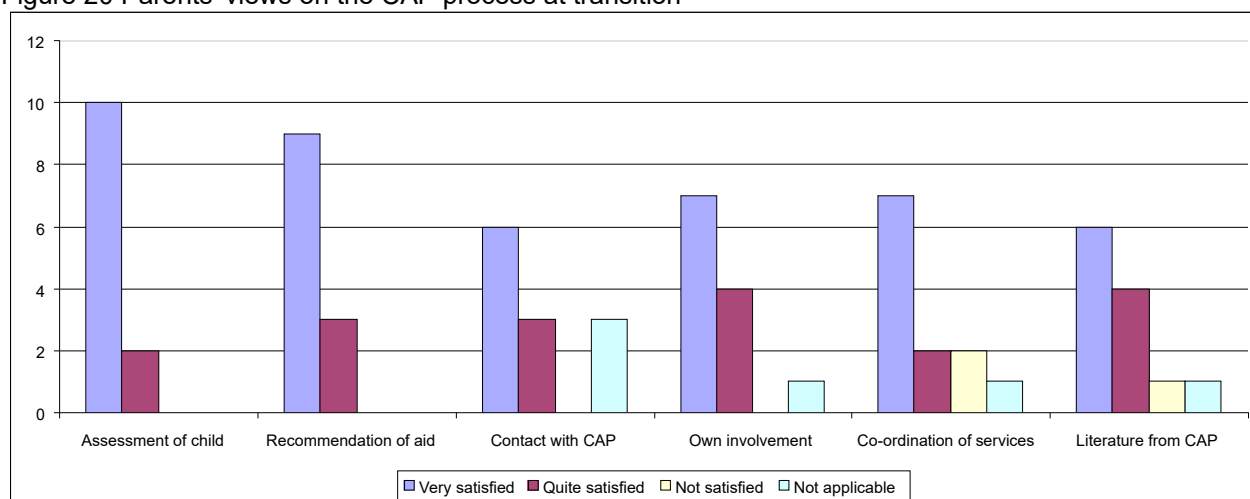
The parents of children in transition were very satisfied with CAP as shown in figure 20. They were very positively about the impact that the communications aids provided by CAP were having on their children's lives. For example,

'she gets transport home on Friday, she has an escort and she just said 'it's fantastic, you know instead of one word answers, we tend to ask her very much questions where she could answer yes or no nod, and she just said 'I just had a conversation with her.' It's very hard to explain to somebody that hasn't had 12 years of well, 'stop, let's start again, you know left or right' and suddenly she's just able to basically say what she wants to say. So yes, I think the whole thing is quite amazing really.'

'He's slightly embarrassed of his [handwritten] work in his book, 'oh no, no', whereas if he's printing stuff off the computer… this morning, I walked past and I said 'oh can I have a look?' And it was 'oh yes'.'

Figure 21 Impact of CAP

Robert has a Lightwriter provided by CAP, which he is putting to good use in and out of school. His mother described how he is using key words on the Lightwriter to help him talk about what he has learnt at school. These key words have been invaluable to the parents in understanding. Robert's mother also described the positive impact of having the Lightwriter on his communication in general: 'His spelling has come on, his sentence structure has developed, anything to do with communication, the structure of, has just blossomed. And it is a direct result of the Lightwriter; there's no two ways about it… It's like a key has been unlocked.'
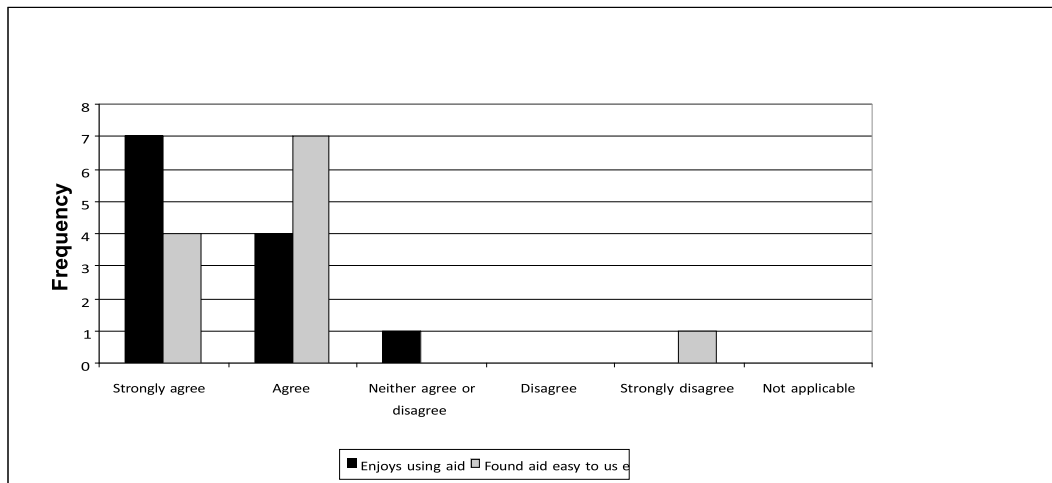
Figure 22 Parents' views on their child's use of the aid

Parents reported that their child found the aid easy to use and enjoyed using it as can be seen in figure 22. They also acknowledge the crucial role of CAP in the provision of the aid:

'[CAP] did come up with the goods and that was absolutely great because you know, the piece equipment he has, we just would not have been a position to buy this for him at all'.

Parents also commented on the fact that having a communication aid provided by CAP meant that professionals involved with their children, particularly education staff, took the needs of their children more seriously:

'if had his own and walked in school it might have been a different story but because it's a government scheme idea they have got to let the child use it'.

'[the aid] made school take him seriously'.

Figure 23 Parents' views on the quality of life indicators (strongly agree + agree)

For some children transition within the same school or to a different school had been a positive experience for all involved, particularly if the move was to a special school. Teacher and SLTs at special schools commented on the benefits of moving to a school with specialist staff and high levels of both support for the children themselves and IT support for the aids. They thought that if the child were to move with an aid to a school without such support they suggested that the transition might not be so smooth.
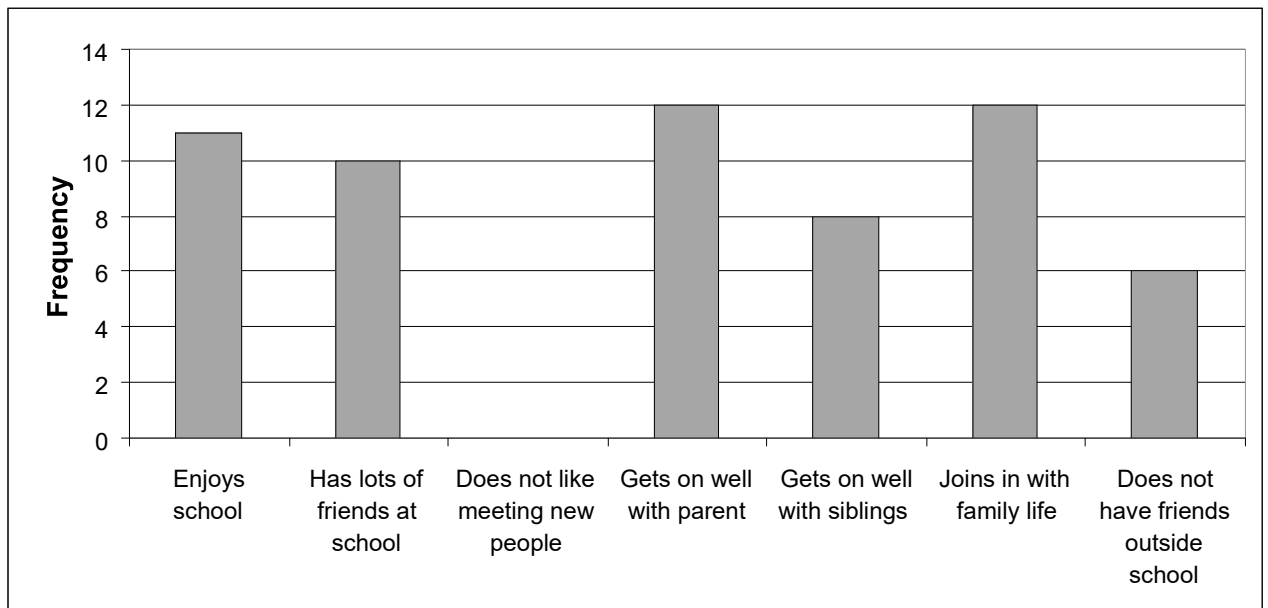
For one child involved in the study the transition from primary to senior setting within the same school offered a new opportunity to make full use of the aid in class. His previous teacher had not encouraged the use of the aid or incorporated it into lessons; at transition the new teaching staff were trained. When asked if there were differences in the way the child used the aid between settings, the parent replied:

'[the teacher] obviously had a couple of sessions in class with him, the ACE Centre came in and talked to her about the communication aid, [the SLT] got involved and the difference has been phenomenal, so yes there's been a massive difference.'

The SLT played a crucial role in ensuring new staff were trained and incorporated the aid into classroom work. The child's parent said:

'I said to her 'you're a professional they have to listen to you, they don't have to listen to me... They have to listen to her, she's got a lot of clout, we've got nothing we're just mum and dad.'
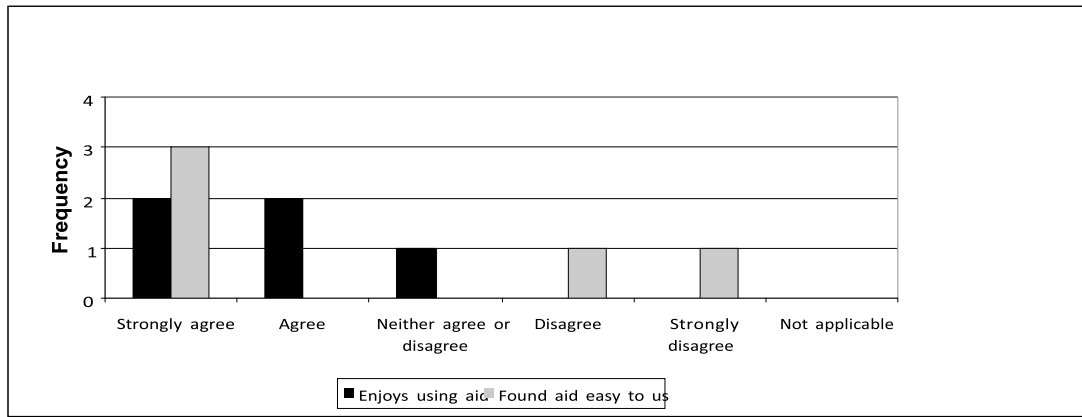
Figure 24 The SLTs' views on a child's use of the aid
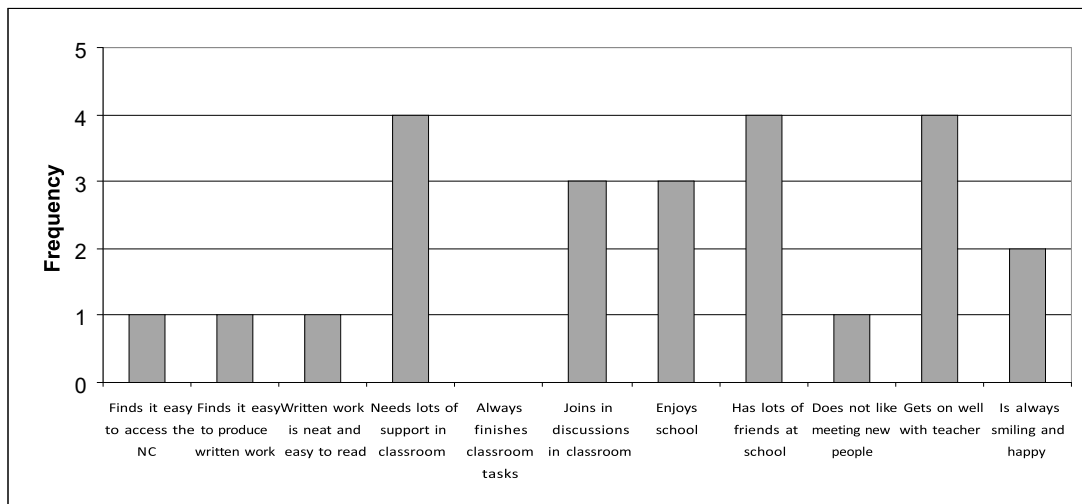
Figure 25 SLTs' views on the quality of life indicators (strongly agree + agree)

One teacher commented that she thought the fact that a child joining her class this year had benefited in that transition from having *'his trusty Dynavox'*. She felt that this was because:

'*it was something that was the same, I mean he was in a different classroom with different teachers, but his communication aid came with him so it was familiar thing in a new setting. So I think that it probably did help him settle.'*

For several children, however, a move within the same school and especially between schools raises several new issues about the use of the aid. A transition from a junior to senior setting will involve a change from having a single class teacher and support assistant in one classroom to a number of different teachers in a number of different classrooms in the school. The challenges here seem to be managing the information provided to the variety of education staff involved on the use of the aid and the portability and security of aids, especially laptops, when they need to be taken between classrooms.
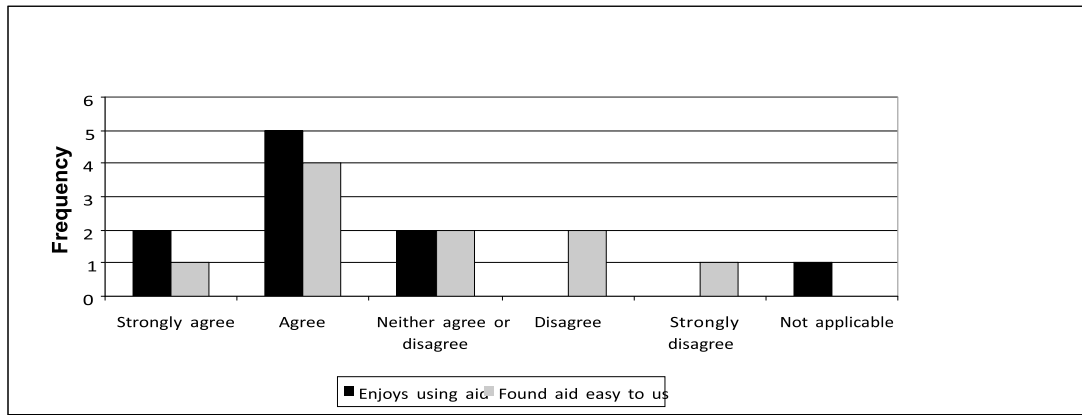
Figure 26 The education staff's views on a child's use of the aid
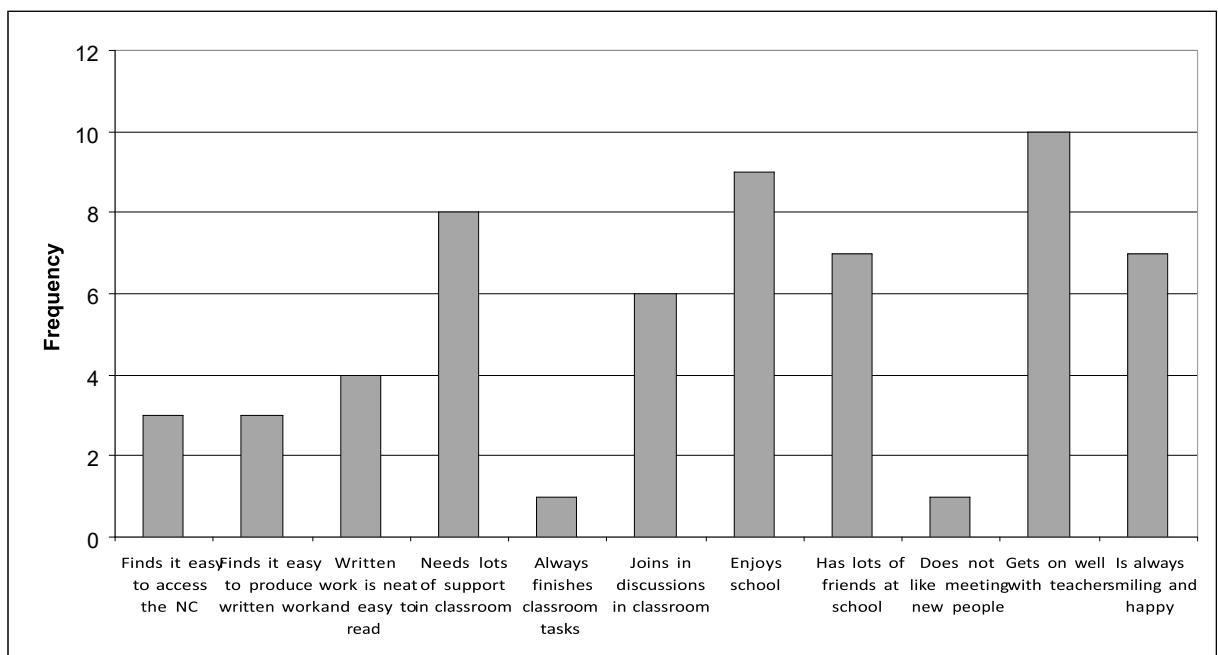
Figure 27 Education staffs' views on the quality of life indicators (strongly agree + agree)

Portability and security

Students with laptops faced particular challenges because laptops were often reported to be large and heavy for children to carry around. This was commented on more frequently for children who had just moved to secondary school. This appears to be more of a problem at secondary school because children move around from classroom to classroom much more than they had done at primary school and the laptop has to be taken with them to each lesson.

While in junior school, security was not such a major issue as the laptop could be chained and locked in the classroom, this was not possible when children were moving from one room to another during the day.

'it's just too heavy, with his books and PE kit'.

'he's got a locker, but it's too big for the locker, so it has to be kept in the learning support unit'.

This inevitably affected the use of the aid, as the child often had to collect it from a separate part of the school for particular classes. This usually meant that the aid was being used less often than hoped. Children were often encouraged to collect the aid, but this would mean that the start of lessons was delayed while the child collected the aid.

Parents and teachers especially identified two areas that could be addressed to make transitions easier for all involved to increase knowledge in the new school on the aid itself and on the use of the aid in different classroom activities:

• Information flow
• Training and monitoring

Information flow
Some parents said that their children's aids were being used less frequently and less effectively in the new setting. This seemed particularly to be the case for children who had been provided with laptops to support writing and/or understanding of written language. One parent recounted an incident at her son's school where a class teacher had remarked on his work being untidy and poorly laid out which upset the child. It became clear that the teacher was not aware of the laptop that was provided for producing written work. The parent commented,

'I thought that the special needs team would have said this boy's dyslexic, he has problems with his handwriting, if you want him to produce work, he needs to do it on his computer.'

Several parents and teachers suggested that one of the main factors in ensuring the appropriate use of the communication aid in a new school is helpful flow of information between schools and between staff in the same school. In most cases it was the SENCo who was to take responsibility for ensuring all the relevant staff in their setting were fully informed about the aid. One SENCo commented that she felt

'I'm the key person who pushes the use of [the aid].'

Teachers acknowledged that the flow of information between schools could often be improved, even though there were usually close links between Special Educational Needs departments in both schools. SENCos interviewed commented that some contact from CAP when the aid arrived would have been helpful. One SENCo, though experienced with supporting literacy at school would have appreciated more support on how to make best use of the laptop provided for a hearing impaired child at the school. She said CAP could make transitions easier for education staff by:

'coming and speaking to the teacher and the key worker because… the things I think it's useful for, CAP may have different ideas.'

Another SENCo suggested that a named contact at CAP which both the primary school staff and she would be able to turn to for advice on using the aid and training would have been beneficial. She had considered arranging for the support assistants most closely involved with the child to be trained, but was reluctant to do this as she did not want to add to the burdens of already underpaid and over-stretched LSAs. She thought that training might not be CAP's responsibility but it would have been really useful to have had someone to discuss the issue with.

'It would have been useful actually to have a contact person or phone number, perhaps kind of highlighted that the SENCO at the primary school would have also have known… you know that yes this is the person that you could contact and they'll come in and liaise with you, they'll train'.

Training and monitoring

In addition to a contact person with whom both schools could liaise, parents and teachers particularly highlighted the need for better training for those working with children who have just moved schools. When staff in the new setting have been trained, the results are positive: '*I am encouraged by the fact that his current teacher… has now undergone a day's training on it, so they are really trying to get to grips with it.*'

Teachers felt there was an expectation that information gained from the initial training on the aid would be passed on by the staff at the schools. This did not always happen, and several teachers indicated that they would have appreciated specific training. Several of those interviewed said that it would have been helpful to train staff from both settings together, though has not always been possible due to difficulties in releasing staff or liaising with a trainer.

Figure 28 The need for training

Asif has a laptop to support his work with written language, though both his parent and teacher recognise that the best use of it is not currently being made in his new school. Both suggest that training would have helped tremendously. His parent commented: *'[CAP] should have gone into the school he's going to and told them the same, and gave them the same advice and training that they gave him at [his primary school]. But then I'm not sure if they felt that the primary school could have passed that on, but I suppose you know it means taking time out and sitting with somebody, which probably both school didn't have the time to do'*

Raising awareness of the aid and increasing teachers' ability to incorporate the aid is relevant not just at transition throughout his school life. *'I know he's going to struggle with reading or writing all the way through and my concerns are that unless all his teachers are aware, not just in the first year but every year, it's going to be harder and harder for him to cope with school life.'*

Another child involved in the study has just moved from a special school to a mainstream setting. In this case the professionals involved were able to organise training which staff at both settings were able to attend. The SLT involved said:

'When we did the training we invited them because we knew he was going to be going… [it worked well] because it wasn't us going in telling them; we were all learning together, which made it more on equal footing'.

Parents also felt strongly that CAP should monitor the use of the aid to ensure that it was being used and that all involved were making the most appropriate use of the aid.

'I would have thought they would want to know how its settling in a different school environment really. And to know that it's being used to the best of its ability and not stuck in some support unit, in the cupboard.'

'make sure that it's being used in the right way, 'cause I mean these things cost money and it's great that we got one but at the same time this project's spending a

lot of money handing these things out but do they really know how well they're being used?'

Summary

Children with communication aids who are involved in the transition process benefit from the possession of a CAP funded communication aid. Although it is acknowledged that the use of an aid does introduce additional demands for those supporting children in transition.

Teachers and parents indicated a need for a better flow of information when children with communication aids are changing from one educational setting to another. There is a significant challenge in managing the flow of information between the parents, children, education and health staff involved with someone using an aid. Parents have also raised issues about some aids, particularly laptops, which are not as easy to carry to and around school given all the other equipment children take to and from school.

There were some concerns about the security of aids, especially laptops, when they need to be taken between classrooms. This may be a factor in an aid not being used as frequently in a new school setting. But one of the other contributing factors to a change in the way an aid is used could be the amount of training and monitoring that staff in the receiving schools have in order to work effectively with children who use communication aids.

In the following section the views of the children are presented.

9.2   Children's perspectives

This section presents the findings from interviews conducted with 12 young people in transition who have been provided with VOCAs and aids to support literacy. The central aim of the interview with children was to explore the value of the CAP funded communication aid within the process of transition and/or within their new school. In order to maintain the children's anonymity all names have been changed.

The young people interviewed expressed positive views concerning the value of their CAP funded communication aids in a range of activities. Seven of the young people were transferring within a special education context and 5 within a mainstream setting. Four detailed case studies were selected from the 12 to illustrate some common themes. Of the 4 children, 2 made the transition from primary to secondary school in mainstream, 1 transferred to the secondary section of a special school and another 1 moved from special to a post 16 department.

Figures 29 and 30 show the range and frequency of quality of life indicators chosen by the young people to represent their own experience of how their aid helped them during transition. For those using aids to support recording and/or understanding the most frequently chosen factors were:
*   feeling satisfied
*   feeling in control
*   feeling like the work being produced is their own.

The most frequently chosen factors by children with VOCAs were:
*   getting a turn to speak
*   being treated fairly
*   being able to say what they are thinking or feeling

- being able to make choices.

With any change of school there is a need to make new friends and it was apparent that some of the children felt that a communication aid helped them to make friends. The case study of David reveals that the communication aid helped with making friends but did not help when talking with a new teacher. There was not sufficient evidence to clarify why he found difficulty talking with a new teacher. But this may reflect parents' views that teachers were not always prepared for children arriving with a communication aids from other schools or even other departments within the same school.

The children at transition also valued the way in which an aid enabled them to show their abilities in a new setting. This theme was echoed even when the young people have very different profiles such as Oscar and Robert.

The aid also provides the opportunity to be able to express one's own ideas that was important to Muhammed as he moved into post-16 provision.

Figure 29: Quality of life indicators chosen by children using aids which support recording and/or understanding
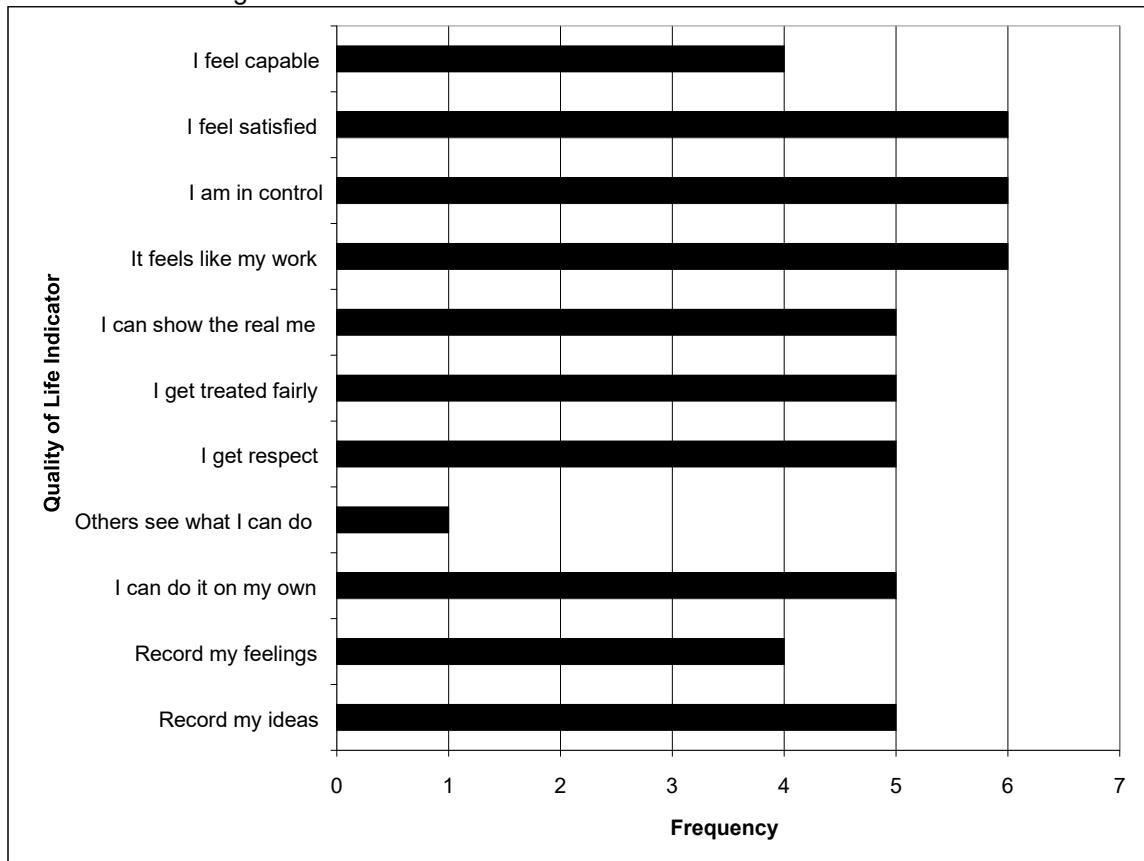
Figure 30: Quality of life indicators chosen by children using VOCAs
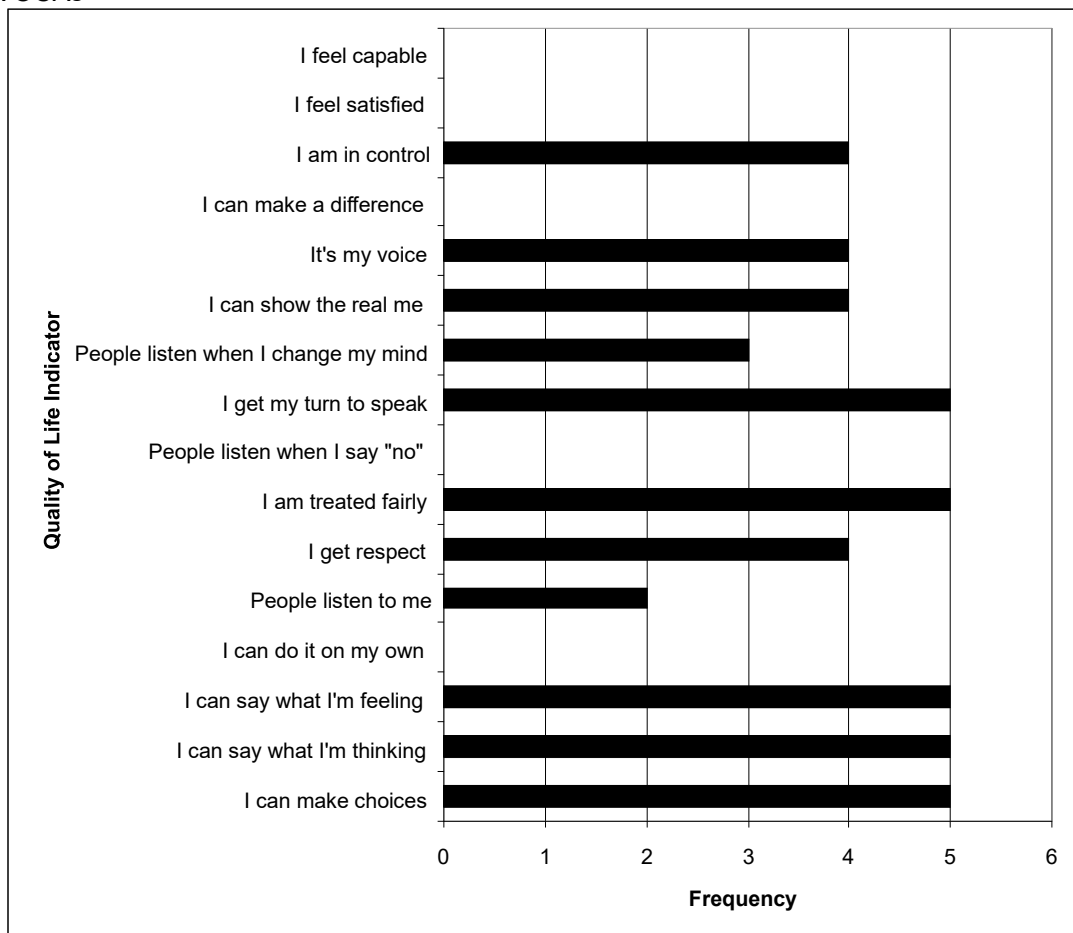
David

David is 11 years old. Last September David moved from the Primary to Secondary Department of his Special School. He is described as a young man with global developmental delay and some physical difficulties. His physical difficulties mean that he has difficulty producing intelligible speech. People who are unfamiliar with his speech find it difficult to understand him. Equally, his speech is difficult to understand when he is talking about things outside the immediate conversational or physical context. He uses some manual signs but his physical difficulties mean that signs can be difficult to produce and are often unclear. He is able to walk unaided in familiar places but for longer distances he used a wheelchair. Before David moved from

primary to secondary school CAP provided him with a *Lightwriter* communication aid to support his verbal and written communication.

Figure 31 Lightwriter

David's interview aimed to explore how useful his CAP funded communication aid had been within the context of transition. He identified six activities that reflected his experience of transition, and his views concerning the value of his communication aid in each of these activities are presented below.

Table 24 David's transition activities and value of aid

Transition Activity	Value of Aid in Process	Importance of activity
In meetings	Useful	Neutral
Visiting new places	Useful	Important
Talking in front of class	Useful	Important
Talking to new people	Useful	Important
Making new friends	Useful	Not important
Talking to new teacher	Useless	Important

He reported that his communication aid was useful to him in five of the six activities. The exception was in talking to his new teacher. Interestingly, although he identified that his communication aid was useful to him in making new friends he viewed this as not an important activity. These two issues, making friends and talking to his new teacher were explored further in order to identify some of the possible reasons behind these opinions.

David's views concerning the usefulness of his communication aid in making new friends is summarised below. David identified a range of quality of life issues that he recognised as relevant to his own experience. Issues such as being able to express his ideas, make choices and take his turn in a conversation were rated highly as positive outcomes of communication aid provision.

Table 25 Value of aid in making new friends

Making new friends	Degree of positive value

Competence	
I can be in control	Small
I can say what I think	Big
I can express my ideas	Big
I can make choices	Big
I can take my turn	Big
Self- esteem	
I get respect	Small
I get treated fairly	Small
I can show the real me	Neutral
I have a voice	Big

Of the issues associated with self-esteem David rated most highly the view that the communication aid gave him his own voice when making new friends.

The interview also explored some possible reasons behind his view that his communication aid was of little value when talking to his new teacher. These findings are summarised below and show that the most significant issues for David in talking to his teacher is that he is not able to make choices and that he is not listened to.

Table 26 Value of aid when talking to new teacher

Talking to new teacher	Degree of negative value
Competence	
I can't be in control	Small
I can't take my turn	Small
I can't make choices	Big
Self- esteem	
I'm not treated fairly	Small
I'm not listened to	Big

It appears that David has benefited from the provision and use of a communication aid during his transition between primary and secondary departments of his special school. Although making friends does not appear to be an important area for him he has reported that his communication aid does make a positive impact on his interaction with his peer group. A significant and valued issue for him is the fact that the communication aid has given him a voice. Unfortunately, for whatever reason, the communication aid is of less value in conversation with his new teacher. It is possible that this may reflect a training need for staff in his new environment who may be unfamiliar with communication aids, and their use.

Oscar

Oscar is a young person who has been described as gifted, and he has shown that he can do extremely well in many areas of the curriculum. However, Oscar is dyslexic and has some difficulties with lateral tracking eye movements. CAP provided him with a laptop computer, which was configured to support his visual access to information presented on the monitor, and a range of software to support him in understanding and using the written word. For example, Oscar prefers text to be presented in blue, rather than black, and, among other things, he has been provided with *TextHelp Read and Write* software that allows him to read back all or part of the text he has produced. This software also provides him with a spellchecker and word prediction facility. Oscar is 11 years old and made the move from primary school to secondary school in September 2003. His interview focused on the value he placed on his CAP funded communication aid in the context of his new school environment.

Oscar chose five activities that he found particularly relevant to life in his new school. He identified writing (composition) and handwriting (presentation of work), as areas of school life in which the communication aid has been particularly useful. Also, these were activities that he rated as important to him. His opinions concerning all five activities are presented below.

Table 27 Activities relevant to new school

Activity	Value of Aid	Importance of activity
Spelling	Neutral	Neutral
Drawing	Neutral	Neutral
Punctuation	Neutral	Important
Handwriting	Useful	Important
Writing	Useful	Important

The value of Oscar's communication aid in support of his writing was explored in greater detail. He chose ten quality of life issues that he felt matched his own experience of using the communication aid in his new environment.

Table 28 Oscar's quality of life issues

Writing	Degree of positive value
Competence	
I can be in control	Big
I can express my ideas	Big
I can make people take notice	Big
I can writing what I'm thinking	Big
Self-esteem	
It feels like my work	Neutral
I get respect	Neutral
I am able to show my abilities	Big
I get treated fairly	Big
I feel satisfied about my writing	Big

I feel more able/capable	Big

Generally, Oscar expressed strong opinions about the positive impact the communication aid had for him in writing (composition). For example, for the indicators associated with competence in writing Oscar reported that the communication aid supported him in: being in control of his work; expressing his ideas; making people take notice and being able to write what he thought. He expressed equally robust opinions concerning the issues representing self-esteem. For instance, he had strong views about the positive impact of the aid in terms of his ability to show his own abilities and skills; feelings of satisfaction with his writing and that he felt himself to be a more able student.

Robert

Robert is a young person of 11 years of age. He experiences significant difficulties with his memory. One outcome of this difficulty is that he finds it particularly difficult to record his thoughts and to read. Before applying to CAP he had shared access to one classroom computer. CAP provided Robert with a personal laptop computer and a suite of software to support him across a range of classroom activities. For example, now Robert uses speech output software when typing which provides him with ongoing auditory feedback about missing words and spelling errors. He also uses word prediction software to help him use suitable and creative vocabulary. Robert received his laptop and software in May 2002, when he was in primary school. In September 2003 he moved from primary school to mainstream secondary school.

When interviewed, Robert recognised six activities that reflected his own everyday experience in his new school. He identified how useful his communication equipment was for each activity, and how important he felt each activity to be. His views are summarised below.

Table 29 Activities relevant to new school

Activity	Value of Aid	Importance of activity
Drawing	Useless	Neutral
Writing	Neutral	Neutral
Punctuation	Neutral	Important
Planning	Useful	Neutral
Spelling	Useful	Important
Handwriting	Useful	Important

Robert reported that his communication aid was most useful in supporting planning, spelling and handwriting (presentation of work). Of these three activities Robert viewed spelling and handwriting as most important. He provided more neutral views concerning the value of the communication aid equipment in writing (composition) and punctuation, although he viewed punctuation as important.

It was decided that the value of communication aid use in supporting spelling would be explored in greater detail, and his opinions on these matters are presented in table 30.

Table 30 Value of aid in supporting spelling

Spelling	Degree of positive value
Competence	
I can write what I'm thinking	Small
I can be in control	Neutral
I can express my ideas	Big
I can do it on my own	Big
Self-esteem	
I get respect	Neutral
It feels like my work	Neutral
I get treated fairly	Neutral
I can show the real me	Big
I feel satisfied about my spelling	Big
I feel more able/capable	Big

He identified ten quality of life indictors as relevant to his own experience. Although he recognised that being able to write what he was thinking was relevant to his experience this was rated as a relatively small issue for him. Stronger feelings were reported concerning the ability to express ideas and being able to work with less adult support. Robert indicated that one of the best aspects of the communication aid use was that it supported him in showing his real self. His aid helped him to feel more satisfied with his spelling and, generally, a more capable student.

Muhammad

Muhammad is a young person with Dystonic Cerebral Palsy. For Muhammad this means he has profound difficulties controlling physical movements and in generating speech. Since 1994 he has used a *Liberator* communication aid that was funded by a combination of local authorities. He accesses this device through switches that are mounted in his headrest. As his physical and communication needs changed, his parents and the staff at this special school recognised that a new communication aid was required and that it was important to explore new ways of accessing assistive technologies if he was to avoid a long term deterioration in his posture, which would have an impact on his general health and well-being. CAP provided Muhammad with a new *Pathfinder* communication aid and individually designed head switches that aimed to maximise access while reducing the possibility of a damaging decline in his

posture. Last September (2003), Muhammad moved from the secondary department of his special school to post 16 education department.

At interview Muhammad identified six communication-focused activities that were relevant to his experience of transition. Without exception, he reported that his communication aid had been useful in each activity. Interestingly, he reported that the most important of these activities were using the communication aid in meetings; in talking to new people and in making new friends.

Table 31 Activities relevant to transition

Transition Activity	Value of Aid in Process	Importance of activity
Talking in front of class	Useful	Not important
Visiting new places	Useful	Neutral
Talking to new teacher	Useful	Neutral
In meetings	Useful	Important
Talking to new people	Useful	Important
Making new friends	Useful	Important

The issue of making new friends was considered in more detail to explore some of the reasons behind the reported value of the communication aid in this area. When Muhammad was presented with a range of quality of life indicators related to making new friends he chose six issues that were relevant to his own experience. He had strong opinions about the positive value of the communication aid in making new friends. Primarily, Muhammad's view was that the communication aid had a positive impact on the conversations in which he took part. For example, he rated the ability to be able to take his turn in a conversation; express his own ideas and say what he was thinking as strong positive outcomes of the provision of his CAP funded communication aid. Other relevant issues, rated neutrally, were the ability to make choices and exert some control over a conversation. Muhammad also reported that he felt his communication aids was useful in making new friends because it helped him to be treated fairly by others.

Table 32 Muhammad's quality of life indicators related to making new friends

Making new friends	Degree of positive value
Competence	
I can make choices	Neutral
I can be in control	Neutral
I can take my turn	Big
I can express my ideas	Big
I can say what I'm thinking	Big
Self-esteem	
I am treated fairly	Big

9.3 Key points

- There is evidence for the benefit of a CAP funded communication aid within transition
- Communication aids introduce particular additional demands for those supporting children in transition.
- Teachers and parents indicated a need for a better flow of information when children with communication aids are changing their setting.
- Parents reported that aids are not used as frequently in a new school setting.
- Staff in the receiving schools expressed a need for training and monitoring in order to work effectively with children who use communication aids.
- Parents and staff reported that issues of portability and security place additional demands on children in secondary schools.

RECOMMENDATION

When applications are made to CAP for a child in transition, evidence should be provided to show that staff in the new setting are aware *of* and involved *in* the process.

RECOMMENDATION

Where children are identified as 'in transition', initial training for staff in the current and the new environment should be shared.

10.0 Conclusion, key points and recommendations

Conclusion

The children and parents interviewed in this evaluation study have been very positive about the impact that a CAP funded communication aid has had on their lives. The staff at BECTA, the CAP centres and the CAP contacts have worked hard to provide children with appropriate communication aids.

This research project enabled the voices of children who use communication aids and their parents to be heard. The children were able to report positive changes in their functional abilities and quality of life issues.

The collection of the information from the children was made possible by the use of an innovative interview procedure that was carried out with the children in school. The telephone interviews with the parents, education staff and therapists elicited considerable information about CAP, the assessment process and the value of communication aids.

Many of the parents acknowledged that if funding from CAP had not been available their child might not have been able to receive a communication aid(s). They also saw the benefit of the aid for their child's experience in school and in extra-curricular activities. Parents and professionals praised the high quality of the CAP assessments. The teachers who had been involved in the assessment process stated that they had gained a great deal from being involved in this process.

The analysis of the CAP database revealed that referrals were received from across England but there was a substantial geographical variation in the referrals. The largest number of referrals came from special schools. It was interesting to note that a substantial number of children were referred who had a description of autism or Asperger's syndrome.

BECTA has built on the knowledge and skills of established CAP centres. On the whole, communications between BECTA and the CAP centres have worked well. The CAP centres have put considerable energy into developing the skills of the CAP assessors and LEAs. However, there is evidence that parents, education and health staff want an improved flow of information about the progress of a referral, assessment and delivery of equipment.

One of the main areas for further development appears to be training. Parents and education staff emphasised the need for further knowledge and training about working with children who use communication aids.

The benefits of CAP and the areas that need developing can be found in the following sections of this chapter where the key points are stated and recommendations made.

10.2 Key points

Analysis of the CAP database

- The numbers of applications made to CAP varies in line with the population numbers in LEAs in England.
- There are particular areas of the country where exceptionally low levels of referral are recorded.
- Time taken from referral to provision of an aid varies considerably, with up to a fifth of applications remaining incomplete after 12 months.
- Almost all children for whom an application is made have a statement of Special Educational Needs (SEN).
- Forty two percent of the applications are for children from special schools.
- Forty one percent of the applicants need help only with written communication.
- Cerebral palsy is the most frequently mentioned disability.

Service use and cost

- The information reported in chapter 4 needs to be interpreted very cautiously and further research should be conducted in order to obtain more internally and externally valid results.
- The cost of the CAP service differed substantially across CAP centres. Many factors might explain the variation in costs across CAP centres. Outcomes were not reported here but it would be important to assess costs and outcomes in order to make comparative efficiency arguments.
- The children in this study used a wide range of services across a number of statutory and non-statutory sectors with considerable cost implications and with implications for inter-agency collaboration.
- The cost of education services was a very large component of the total cost of the package of services received by these children.

Application

- It is acknowledged that CAP centres have invested significant energies in supporting applicants, CAP assessors and LEAs so that they are able to make informed applications to CAP.
- There is evidence that people applying to CAP for funding are demonstrating improved knowledge and skills in completing the application forms.
- Changes in the application forms were perceived as frequent and a source of irritation for some of those interviewed.
- The web-based application procedure appears to reduce bureaucracy but may exclude professionals with limited or no access to ICT.
- Where a speech and language therapist or specialist teachers did not lead applications, application procedures including the application form were viewed as overcomplicated and/or unclear. This is reflected in the different rates of refusal for the different lead.
- Many effective local CAP assessor teams have been developed.
- In some areas the development of local CAP assessor teams has been less successful.
- Local CAP assessors report that the level of support and guidance available from CAP centres varied.

Assessment

- It is recognised that multi-professional team assessment involving parents and other relevant stakeholders is a logistically complex task and takes time to arrange.
- The composition of the assessment teams varies depending on the needs of the child.
- Parents and professionals felt that the CAP assessments were very professional and provided an assessment of a high quality.
- There is a lack of consistency in recording the three targets on the assessment report.
- Teachers gained a great deal from being involved in the assessment process and the ensuing discussion.
- It is recognised that the development and maintenance of local CAP assessor teams takes up significant time and energy of the staff at the CAP centres.
- There is a need to ensure appropriate quality assurance measures are in place for assessments conducted by local CAP assessors so that there is a consistency across CAP centres.

Post assessment and delivery of the aid

- The views of the parents were mixed concerning the timescale of the process and information.
- Training provided by CAP centres is valued and it was acknowledged that there was a benefit in having access to people who are experts in this field.
- There is evidence that education and health staff are seeking further knowledge and skills in this area.
- It is acknowledged that there is a need for child-specific guidance.

Impact of the communication aids

- It was recognised by parents, education staff and therapists that if funding from CAP were not available many of the children might not have been able to receive communication aids at all.
- Parents expressed strong positive views concerning the provision of the communication aid for their child.
- Parents reported that their child benefited from the communication aids in school and in extra-curricular activities.
- This has introduced new challenges for classroom staff seeking to manage parents' expectations and integrate use of the aid into classroom work.
- Children receiving communication aids reported positive changes in their functional abilities and quality of life.

Transition

- There is evidence for the benefit of a CAP funded communication aid within transition
- Communication aids introduce particular additional demands for those supporting children in transition.

- Teachers and parents indicated a need for a better flow of information when children with communication aids are changing their setting.
- Parents reported that generally aids are not used as frequently in a new school setting.
- Staff in the receiving schools expressed a need for training and monitoring in order to work effectively with children who use communication aids.
- Parents and staff reported that issues of portability and security place additional demands on children in secondary schools.

10.3 Recommendations

Recommendations for the DfES

RECOMMENDATION

CAP has provided many children with communication aids that have improved the quality of their lives and improved their access to the curriculum. Parents have been very appreciative of the CAP provision. It is recommended that further funding is sought in order to extend the project.

RECOMMENDATION

An analysis of the CAP service costs should be carried out when the service has been running for a longer period so that start up costs are spread over a longer time horizon.

RECOMMENDATION

Parents, professionals and children would benefit from improved opportunities for training and guidance. A review of the policy of only providing basic functional training is warranted.

Recommendations for BECTA

RECOMMENDATION
The proposed expansion to the BECTA database should be given priority.

RECOMMENDATION
There should be closer examination of factors affecting completion times.

RECOMMENDATION
The exceptionally low referral rates recorded in certain LEAs should be explored.

RECOMMENDATION
Information about why applications are refused needs to be collected in a systematic way.

RECOMMENDATION
Consideration should be given to further expansion of the database to include categorical data on communicative disability.

> **RECOMMENDATION**
>
> The frequency with which changes are made to the CAP processes needs to be minimised. Where changes are necessary, information about amendments should be made available as far in advance as possible.

> **RECOMMENDATION**
>
> Further information on how an application is progressing would enable parents and professionals to track the process and reduce their stress. It may also reduce the number of telephone calls made to CAP about the progress of an application.

> **RECOMMENDATION**
>
> In order to ensure that there is a short time period between assessment and arrival of the aid there is a need to explore new ways of ensuring that signatures to individual assessment forms are collected as quickly as possible

> **RECOMMENDATION**
>
> When applications are made to CAP for a child in transition, evidence should be provided to show that staff in the new setting are aware *of* and involved *in* the process.

Recommendations for CAP centres

> **RECOMMENDATION**
>
> Future costings of the CAP service for each centre should use a bottom-up approach, which identifies the different resources used to deliver the service and assigns a value to each.

> **RECOMMENDATION**
>
> The identification of a key person to contact at a local level if unsure about an aspect of the CAP process would be an advantage for parents. This person could be identified at the time of writing the assessment report.

> **RECOMMENDATION**
>
> Close attention should be paid to the recording and evaluation of targets for children and the staff with whom they work. Such information is likely to provide a valuable evidence base for the attainment of children using communication aids in education.

> **RECOMMENDATION**
>
> Local CAP assessors would benefit from identifying and reporting the strengths and areas for change in the support that they have received from the different CAP centres. This information will enable CAP centres to understand the expectations of local assessors and help them to provide the best possible support.

> **RECOMMENDATION**
>
> It is recommended that the mechanisms and resources for supporting local CAP assessors are explored as a matter of priority in order to maintain and develop the good practice developed by CAP beyond the life of the project.

> **RECOMMENDATION**
>
> Where appropriate, recommendations should be made following assessment that supports the use of existing technology in school and/or introduce or improve the use of low-tech systems. This will provide parents and schools with opportunities to explore the use of alternative forms of communication before the technological aid is delivered.

> **RECOMMENDATION**
>
> Where children are identified as 'in transition', initial training for staff in the current and the new environment should be shared.

Recommendations for school managers

> **RECOMMENDATION**
>
> The management system within schools should enable class teachers to be involved with CAP assessments as often as possible in order to facilitate their continuing professional development in the area of SEN and ICT.

Recommendations for further research

This study provided a unique insight into the views of children and parents about the impact of a CAP funded communication aid on their lives. They have been very positive about CAP. However, this study took place over a short period of time and further valuable information about the use of communication aids in school could be collected if the children who were interviewed twice, at Time 1 and Time 2, were interviewed again in 12 months.

The CAP database has brought together valuable information not previously gathered in one place. Further analyse of the CAP database would be advisable after the planned changes have been made in the information about reasons for rejection of applications and the possible further expansion of the database to include categorical data on communicative disability.

One of the main areas for future development appears to be training. Parents and education staff emphasised the need for further knowledge and training about working with children who use communication aids. CAP has been providing training mainly at a generic level and this need will continue but there is also a need to focus on training which is child-specific.

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APPENDIX A
Abilitynet www.abilitynet.org.uk

Abilitynet is a national charity that developed in 1998 from a merger between the Computability Centre and the Foundation for Communication for the Disabled. It has expertise in computing and disability with a particular focus on the technology to

support the written work of adults and children with visual, physical and literacy problems.

Abilitynet has a number of centres in the UK and different centres take the lead on different aspects of Abilitynet's work. All of those in England are involved with CAP. The interviews for this report took place with staff at the Papworth centre, the Abilitynet centre that takes the lead on educational issues. Prior to CAP not all Abilitynet centres were necessarily involved with educational issues so that the introduction of CAP meant that considerable internal work was required to ensure that all centres were fully informed about CAP procedures and systems.

CAP enabled Abilitynet to strengthen its involvement in education. This was welcomed by the charity although their brief remains wider than the CAP project.

ACE Oxford   www.ace-centre.org.uk

The ACE Centre Advisory Trust is an independent charity based in Oxford serving a large geographical area including the south of England, but not Greater London. The ACE Centre was founded in 1984.

The role of the centre is to provide information, support and training for parents and professionals in the use of technology for children and young people who have communication difficulties in speaking and/or writing. The centre has a long established tradition in a working with children who need speech output devices.

Prior to CAP the centre had contact with many LEAs and had a well-established reputation. Members of staff at ACE Oxford have responsibility for specific LEAs within which they have developed contact with administrators and health and education staff.

ACE North www.ace-north.org.uk

ACE North was founded in the early 1980s and is a registered charity based in Oldham. Within its wide geographical remit, the centre serves the north of England. Within the centre there is an inter-disciplinary team of teachers, speech and language therapists and occupational therapists who provide advice, training and assessments for children and adults. The team has expertise in working with children with complex physical difficulties who need support with their writing as well as children who need support for their speech output.

Prior to CAP, the ACE North centre had an established reputation with many LEAs in the north of England. Individual members of staff had contacts with administrators and education staff and health personnel within specific LEAs.

ACE North's involvement with CAP has enabled them to raise the profile of the skilled teams of assessors working within specific areas as well to develop new local teams of CAP assessors. Local teams from special schools have also been able develop their outreach work.

DCCAP www.dccap.org.uk

DCCAP has come into existence as a result of CAP. It is the joining together of Deaf@x and BATOD and has a national remit. It has a joint management team and three Project Development Officers, two part-time, one full time. The administrative Head Office is based at the Reading University Campus.

The aim of DCCAP is to support children who have a significant hearing loss and who need additional technology to enable them to access the curriculum and to cope with school setting. This may include hardware and software to help them to develop written or verbal communication.

CAP has enabled DCCAP to inform Teachers of the Deaf, who often make referrals or are involved as assessors, about the available technology. DCCAP has now begun to liaise with SCOPE and the ACE centres to carry out some joint assessments.

London CAP

The Neurodisability team based at the Wolfson Centre, Great Ormond Street Hospital for Sick Children and the support service Cenmac (www.cenmac.com) are working closely together as the London Cap.

The Wolfson Centre, part of the NHS work mainly with children with complex needs many of which require a speech output device. Cenmac is an education based service with contracts with LEAs in and around London working with children with physical and communication difficulties. Their particular expertise is in software to support writing in school.

Although both teams functioned prior to the project, CAP has facilitated the health and education teams to work together.

SCOPE www.scope.org.uk

SCOPE has a long history as a charity working for people with disabilities in England and Wales. Staff working for SCOPE have considerable experience in special education and the assessment of communication and within the 6 schools and college run by SCOPE.

SCOPE had much previous experience in this area of work but since CAP, has developed a new team whose specialist focus is on the under 5s and children with PMLD.

The team are working closely with a number of special schools to develop expertise in assessing children with PMLD. They are also trying to support schools with large numbers of children referred to CAP. The team are helping staff in these schools to develop their skills so that they can then take on a mentoring role with staff in other schools.

Appendix B Child interview

Principles in interview design

The procedure is based on the organisation of symbol/picture representations of key issues under discussion and options for decision-making. In this way the interview supported children in thinking through the issues and created a permanent visual representation of the decisions made. Symbols used were based on Picture Communication Symbols (Mayer-Johnson, Inc.). This symbol vocabulary set is commonly used in England. The simple two-dimensional colour symbols are best placed to support children with visual difficulties in the location of figure in ground.

Co-construction of non-speaking person's turn

There are particular methodological problems when seeking the views of people with communication difficulties. For example, for many people using Voice Output Communication Aids (VOCAs), an act of communication typically involves explicit and collaborative co-construction of the message with the communication partner. Such negotiation of meaning between interviewer and young person may be considered a confounding influence for findings, particularly if the interviewer is conceived of as an advocate for a particular point of view. However, failing to engage in a negotiation of meaning also raises questions about the interpretation of young people's actions and the credibility and authenticity of reported views.

Interview Context

The interview took place in school which allowed for the possibility of a range of communication partners to accompany the young person in the interview; and enabled the interviewer to meet school staff. In order to support the young person in thinking about the issues under discussion it was preferable to ask questions relevant to the location in which the interview was conducted, and *concrete* events within that environment. Consequently, the interview focused on issues concerned with the young persons functional abilities and quality of life issues relevant to their school life.

Time 1 Interview

The Time 1 interview was based on an exploration of the young person's experiences of communication-based activities and events throughout the school day, and the provision of a communication aid and how it might impact on the child's ability to participate in these events.

Table A: Summary of the 9 stages of the procedure

Stage 1   Identification of child centred activities/events
    ↓

Stage 2   Introduction to procedures for one-to-one interview
    ↓

Stage 3   Identifying a range activities relevant to own school based experience
    ↓

Stage 4   Rating 'ease' or 'difficulty' of participating in these activities
    ↓

Stage 5   Rating the 'importance' of activities identified as difficult
    ↓

Stage 6   Deciding on a 'difficult' and 'important' activity to discuss in more detail

    ↓

Stage 7   Identifying the relevance of other children's views, (concerning problems in communication-based activities), to their own experience

    ↓

Stage 8   Rating the strength of feeling about views identified as relevant

    ↓

Stage 9   Review decision making from stage 4 and stage 8 (optional), exploring the potential for changes subsequent to the provision of communication aid

Stage 1: Identification of child-centred activities/events
To capture child-centred activities/events the interviewer spent some time shadowing the young person in school. This took place on the same day as the interview and relevant events were incorporated into the procedure before the one-to-one interview took place.

Stage 2: Introduction to procedures for one-to-one interview
First, all young people were introduced to the discourse functions: want to stop; don't understand; don't want to say; don't know; that's not what I meant -shown in figure A

Figure A: Discourse functions

Stage 3: Identifying a range of activities relevant to school-based experience
Young people were asked to identify a maximum of eight activities/events relevant to their life experience in school, from a given array. Of these, a maximum of six were taken forward for discussion during the interview. This consisted of a maximum of three activities/events identified by the child and interviewer during their time together and a minimum of three provided by the interviewer.

The validity of decision-making was probed by asking whether an unlikely activity, one that was not age-appropriate for example, was part of that individual's experience.

For children recommended VOCAs the events provided by the interviewer were taken from the following array:
- ⑩ answering questions when you know the answer
- ⑩ asking questions
- ⑩ telling jokes / telling a white lie
- ⑩ telling my news
- ⑩ taking part/getting my turn in group discussions/conversation with other students talking in front of the class / to the whole class

For children recommended aids to support recording and/or understanding the priority events provided by the interviewer were:

(1) writing in class/at home - composition
(2) handwriting / presentation
(3) spelling
(4) punctuation
(5) planning /drafting work
(6) technical drawing

Unlikely items included: either: (1) playing with sand or
(2) reading a newspaper

As items were identified they were placed within the drawing representing a school (see figure B). The interview procedure aimed to:
• support young people in thinking about and reporting their views with some authenticity;
• situate the interview within the context of the child's school life;
• ensure the ecological validity of the issues discussed;
• provide an opportunity to assess the reliability of children's responses through the introduction of unlikely items;
• bridge the gap between previous discussion concerning communication based activities and the one-to-one procedure;
• combine user-centred issues and a base of provided issues to support comparison between case studies.

Figure B: Representation of school

Stage 4: Rating activities as easy or difficult
Young people were then asked to identify which activities they found easy and which might be difficult. Items were located on a scale, giving a visual representation of decisions made

Stage 5: Rating the 'importance' of activities identified as difficult
The young person was then asked to re-consider each item marked as difficult, and identify which they thought was the most important to be able to do well / which one they cared about most (see figure C).

Figure C Rating scale of importance
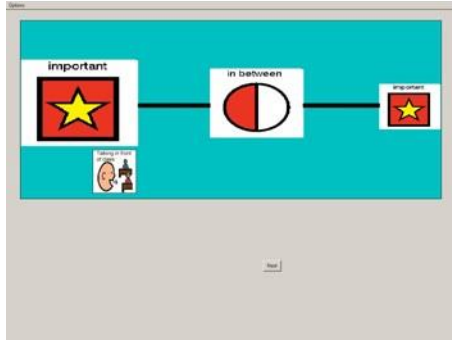
Stage 6: Deciding on a 'difficult' / 'important' activity

A summary of the decisions so far was presented and the young person was asked to choose one item that had been rated as 'difficult' and 'important', for further discussion. Where the child had not identified a single item as both 'difficult' and 'important' , one 'difficult' item was chosen to be taken forward.

Stage 7: Identifying the relevance of other children's views

The young person was then told that other children had said similar things about what they found difficult. The young person was told / shown some of the things said about the problems others had experienced in similar communication-based activities. The young person was asked whether or not they shared that view. Items were sorted accordingly. The items presented are listed in Table B.

Table B: Problems experienced in communication-based activities

Competence	Issue
Performance	• Not able to show what you can do / skills / what I know • Teacher/adult/child doesn't know how I do it (communicate/write)
Productivity (a)	• It takes too long • It takes lots of effort
Independence	• If I want to ……normally I need lots of help / I have to rely on adults too much • Other people do it for me
Self-esteem	
Usefulness	• Other people think I can't help them / be helpful / help sort out their problems
	Because I have difficulty……:
Respect	• People treat me like a baby / child / younger person • People think I'm stupid • People think I don't have anything interesting to say/write • I am not able to show the real me / my personality
Sense of power	• It doesn't really feel like your work / my voice
Sense of control	• I can't really be in control
Self-esteem (feelings)	

Frustration	• I feel frustrated / disappointed about
Embarrassment	• I feel embarrassed / awkward / uncomfortable / about it

Figure D. Example of interviewees' responses
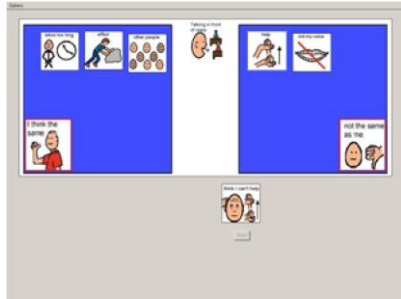
Stage 8: Rating the strength of feeling about views
The young person was asked to identify the relative strength of feeling for those items identified as matching their own experience. The ranking procedure was modelled using the reported experiences of other young people, thus validating the children's own views.

For example (see figure E below):
"This boy (green) said that _____ was a really big problem, and he put his symbol here. This boy (yellow) said _____was a problem but only really a small one and put his symbol here. This boy (blue) said _____ was not a big problem but not a small one either, it was somewhere in between, he put his symbol in the middle, here. What about you? What do you think?"

Figure E Rating strength of feeling
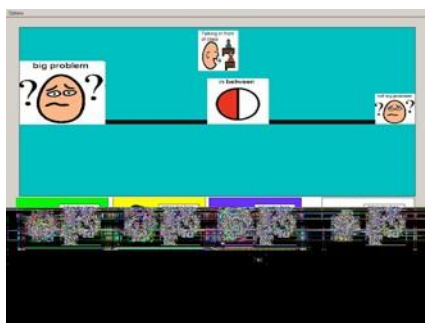
Stage 9: Review decision making
Finally, the young person was shown a picture of the device they had been recommended. The interview then returned to the discussion of which activities they found easy and which might be difficult. They were then asked to think about whether this might change with the introduction of their communication aid.

Transition Interview

The central aim of this interview was explore the use / value of communication aids during the processes of transition (planning, leaving old placement and joining new environments).

In conducting this work from a child-centred perspective it is ideal that the young people themselves identified relevant events from the process of transition that may be explored in the interview. In this way an understanding of what transition has meant/means for the young person will be revealed. In order to capture such events it was desirable to spend some time shadowing the young person before the interview.

It is possible that for children using VOCAs the value of the device might be identified through activities such as voicing opinions in meetings, making choices or communicating preferences. For children provided with aids to support literacy the interview is likely to focus on the value of their communication aid within their new educational environment. It is possible that findings from these interviews can be compared with experiences of transition for people with communication difficulties reported in the literature, for example the Rite project (http://www.ritesite.org.uk).

Stages in the transition interview

Stage 1   Identification of child centred activities/events
    ↓

Stage 2   Introduction to procedures for one-to-one interview
    ↓

Stage 3   Identifying a range activities relevant to own experience
    ↓

Stage 4   Identifying which activities involve or involved the use of a communication aid
    ↓

Stage 5   Rating the 'usefulness' of the communication aid in each activity
    ↓

Stage 6a Identifying the relevance of other children's views concerning perceived value of the communication aid or….

Stage 6b Identifying the relevance of other children's views concerning perceived lack of value of the communication aid
    ↓

Stage 7   Rating the relative strength of feeling of positive and/or negative views

Appendix C CAP application form

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Application Form

1. **Who should be considered as the key person with responsibility for this application?**

Name:

Organisation:

Address:

Postcode:

Email address:

Relationship to the pupil:

Daytime telephone no:

How did you learn about CAP (for example, Article, Conference...)?

2. **The pupil**

Name: Date of birth (dd/mm/yyyy):

Age: Years   Months   School Year:

Home address:

Postcode:

Telephone:

(continued on next page)

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3. Education Details

3.1 School

School name:
Address:
Postcode:
Telephone:
Headteacher's signature:
Is the pupil educated at: ☐ School   ☐ Home   ☐ Funded by LEA at an independent school   ☐ Other (please specify):
Type of school: ☐ Mainstream   ☐ Primary   ☐ Secondary   ☐ Special School

3.2 Local Education Authority (LEA)

Name of LEA:
Name of LEA Officer/Representative:

3.3 Names of parent(s)/guardian(s)/carer(s)

3.4 Please give details of the pupil's disability or limiting condition.(Including any mobility issues)

3.5 At what stage of the Code of Practice is the pupil?

☐ Early Years Action/School Action
☐ Early Years Action Plus/School Action Plus
☐ Statement of Special Educational Needs

3.6 As it stands, has the pupil been subject to a medico-legal case?

If YES has either a claim been awarded or an interim payment been made?
If YES does this cover ICT/Communication Aids equipment?

4. Basis of Application

4.1 Is the communication need mainly for:

☐ Understanding language
☐ Communicating verbally
☐ Using written communication

4.2 What equipment/resources have been provided for the pupil to date?

Type of equipment / resource	Specific	Shared Access
Non-electronic communication system, e.g. symbols, signs		
Access device(s), e.g. switches, alternative keyboard, rollerball		
Supportive software e.g. Word prediction, Symbols software		
Portable writing aid, e.g. AlphaSmart		
Computer		
Voice output communication aid, e.g. Big Mack, MessageMate, Pathfinder		
Human Resources		
Other		

4.3 How were any specific resources funded?
Joint funding: ☐ Education   ☐ Health   ☐ Social Services   ☐ Other

☐ School
☐ Education Authority
☐ Health services
☐ Charity
☐ Private

4.4 If resources have been made available are these now inadequate? If so, in what way?

4.5 What steps have been made to address this situation?
(Include, where appropriate, details of equipment/resources trialled, funding avenues explored with results.)

4.6 Please specify, as precisely as you are able, the equipment/resources you feel the pupil needs that is not/are not currently available

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5. Please give us details of those people/professions who play a part in meeting the needs of the pupil and indicate whether their support for this application has been sought.

Role	Name	Telephone	Support sought?		
			Yes	No	N/A
Parents			☐	☐	☐
Headteacher			☐	☐	☐
Teacher			☐	☐	☐
SENCO			☐	☐	☐
Learning Support Assistant			☐	☐	☐
Speech and language therapist			☐	☐	☐
Occupational therapist			☐	☐	☐
Physiotherapist			☐	☐	☐
LEA Support Services (please specify):			☐	☐	☐
Other			☐	☐	☐
Other			☐	☐	☐

6. Please give any further information which you feel would be helpful when considering this pupil's application.

7. Will an interpreter be needed for the purpose of the assessment?

8. Signatures, consent and privacy

CAP takes great care to ensure that the child's privacy and yours is safeguarded and protected. Our Privacy Policy is available on the CAP website. In respect of this application (and any further information and communication between us) all of the information you provide will be stored electronically or in paper form under appropriately secure conditions. We will share this information only with those who are involved in processing and assessing this application, taking action on the outcome (including the supply of equipment or software) or otherwise involved with the project. As part of the monitoring, audit or assessment of the project you may be contacted by other agencies such as the Department for Education and Skills.

Agreement

I have read the Privacy and Data Protection notice on the CAP website and agree that the information supplied in this application will be processed as set out above.

Signature of parent or guardian: ....

Date: ....

(Please note that we cannot proceed with the application without a signature of consent above)

It is often helpful in the consideration of applications if images (still or moving) of the child can be taken and used by those involved with the assessment. If you are willing for this to take place, please sign below.

Signature of parent or guardian: ....

Date: ....

I understand that this document is the first step in the application process for support from CAP, and that it will be used to judge the pupil's suitability for inclusion in CAP. If it is successful I will be contacted by the appropriate CAP Centre/CAP Contact to discuss the way in which this application can be best taken forward. It is also likely that the CAP centre will ask for additional information. I understand that the submission of this Application form does not guarantee that the pupil will receive support from CAP.

If this application is successful and resources are made available via CAP, the pupil may subsequently require additional ongoing resources (for example classroom support or technical support) to ensure that the intervention is successful. I understand that any such additional resources cannot be funded via CAP.

Declaration

I certify that the information given in this application form is correct and that I have not omitted any relevant details. I understand that this and future applications for CAP funding may be jeopardised if I deliberately withhold important information.

PLEASE ATTACH ANY COPIES OF RELEVANT ICT INFORMATION THAT CAN SUPPORT THIS APPLICATION.

Signature of referrer: ....

Position: .... Date: ....

Appendix D CAP assessment report

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Assessment Report

Pupil's CAP ID number: [ ]

1. Allocated CAP Centre/s
Please enter the name/s of the CAP Centre/s allocated to this assessment.

[ ]

2. Details of Assessor/Assessors
(The Assessor and/or CAP Centre people involved at time of assessment)

Name/s	Position/Profession

3. Details of Assessor writing the report

Name	
Address:	
Postcode:	
Tel No:	
Fax No:	
Email:	

Please send any 'Claim for Work Done' and Travel expense forms with this assessment to the allocated CAP Centre.

4. Assessment Venue Information

Pupil's CAP ID Number	
Venue of the assessment *(name and address)*	Postcode:
Date of assessment *(dd/mm/yyyy)*	
Attendees at the assessment	
Others who contributed to this assessment *(for example, consulted by phone)*	

5. CAP Units Information
Please enter all the units for CAP Assessors involved with this assessment giving a brief explanation of the reason for the claim.

Name	No of Units	Reason

CAP Centre Validation Signature: _____
(The above CAP units have to be authorised by the CAP centre.)

(continued on next page)

6. Background information (gathered before assessment)

6.1 'Introduction to the Pupil'
(for example, Age, Diagnosis, School situation)

Only complete the following sections that are applicable to the pupil.

6.2 Seating, positioning and mobility issues:

6.3 How the pupil controls technology:

6.4 How the pupil records information (including use of technology):

6.5 How the pupil communicates (Including use of technology):

6.6 Additional Information:
(Please list all attached previous assessment reports if relevant)

7. The Assessment

7.1 Aim of this assessment:

8. Equipment and strategies considered
Only complete the following sections that are applicable to the pupil.

8.1 Access devices/strategies:

8.2 Resources and strategies to support communication:
(for example, signs, symbols, voice output communication aids)

8.3 Resources and strategies to support recording:
(for example, hardware and software)

8.4 Other:
(for example, training and support issues)

8.5 Summary of equipment and strategies:
(conclusion drawn from assessment)

Recommendations

(Please note: Do not complete the following sections if you are sending this assessment with a referral. Please go to section 10: Targets.)

9. Ongoing Assessment Information

If loan equipment is being trialled over a period of 3 months, please list below the issues to be resolved.

9.1 CAP FUNDED Equipment
*See the CAP catalogue on the web site http://www.becta.org.uk/cap for details

Product Title	Requirements (e.g. Equipment specifications and set ups)

9.2 DELIVERY DETAILS

Contact Name:	
Delivery Address: Postcode: Tel No:	

9.3 CAP FUNDED Training

Details	CAP Units	Provider

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9.4 NON CAP FUNDED ITEMS
(Support, technical assistance, insurance, extended warranty)
*Costs for these items cannot be met via CAP funding. A signature should be sought from a representative of these providers to indicate that they undertake to provide the items specified.

Description	Provider	Signed*

10. Please list 3 targets (identified at the time of the assessment by all present) that the student should be able to achieve within 6 months of receiving the equipment.

1)

2)

3)

If a video demonstrating progress towards the targets is required, please enter YES here:

Signed: _____   Date: _____
CAP Assessor

Validation signature from CAP centre main contact:

Signed: _____   Date: _____
CAP Centre

Appendix E
Application rates by LEA

	TOTAL PUPILS IN MAINTAINED PRIMARY, SECONDARY OR SPECIAL SCHOOLS	TOTAL STATEMENTED PUPILS	TOTAL SEN WITHOUT STATEMENTS	TOTAL ALL SEN	% OF POPULATION WITH SEN	CAP APPLICATIONS		% OF SEN POPULATION APPLYING TO CAP
ENGLAND	**7710944**	**240993**	**1117103**	**1358096**	**18%**		**2990**	**0.22%**
NORTH EAST	**412536**	**13599**	**60065**	**73664**	**18%**		**268**	**0.36%**
Darlington	15579	519	2115	2634	17%	6		0.23%
Durham	77934	3087	12401	15488	20%	74		0.48%
Gateshead	29498	802	3740	4542	15%	16		0.35%
Hartlepool	16593	424	2595	3019	18%	9		0.30%
Middlesbrough	22278	908	3936	4844	22%	11		0.23%
Newcastle upon Tyne	38417	1025	5870	6895	18%	32		0.46%
North Tyneside	31682	1128	4325	5453	17%	35		0.64%
Northumberland	51629	1711	5152	6863	13%	27		0.39%
Redcar and Cleveland	25050	627	4374	5001	20%	2		0.04%
South Tyneside	24875	736	3255	3991	16%	35		0.88%
Stockton-on-Tees	31772	1056	4124	5180	16%	8		0.15%
Sunderland	47229	1576	8178	9754	21%	13		0.13%
NORTH WEST	**1115287**	**36551**	**155514**	**192065**	**17%**		**486**	**0.25%**
Blackburn with Darwen	24981	845	4346	5191	21%	10		0.19%
Blackpool	21220	711	3819	4530	21%	11		0.24%
Bolton	46364	1570	6875	8445	18%	21		0.25%
Bury	28995	943	3987	4930	17%	34		0.69%
Cheshire	106555	3566	11097	14663	14%	29		0.20%
Cumbria	77392	2314	10412	12726	16%	38		0.30%
Halton	19782	932	2823	3755	19%	9		0.24%
Knowsley	28020	1089	5868	6957	25%	4		0.06%
Lancashire	177417	6714	22926	29640	17%	61		0.21%
Liverpool	76414	2181	14393	16574	22%	36		0.22%
Manchester	67135	2152	11060	13212	20%	15		0.11%
Oldham	40872	751	5113	5864	14%	36		0.61%
Rochdale	36035	1150	4736	5886	16%	17		0.29%
Salford	34346	908	5005	5913	17%	44		0.74%
Sefton	46893	1238	6563	7801	17%	23		0.29%
St. Helens	29229	1039	3806	4845	17%	11		0.23%
Stockport	42752	1328	6246	7574	18%	11		0.15%

Tameside	37814		1092	4727	5819	15%		28	0.48%
Trafford	36468		859	4300	5159	14%		11	0.21%
Warrington	32680		1048	3940	4988	15%		6	0.12%
Wigan	49881		2020	7140	9160	18%		17	0.19%
Wirral	54042		2101	6332	8433	16%		14	0.17%

YORKSHIRE AND THE HUMBER	**822291**	**25555**	**109944**	**135499**	**16%**		**258**	**0.19%**
Barnsley	35127	1054	5108	6162	18%	9		0.15%
Bradford	86734	2549	13840	16389	19%	21		0.13%
Calderdale	35274	1111	3517	4628	13%	19		0.41%
Doncaster	51486	1804	5486	7290	14%	15		0.21%
East Riding of Yorkshire	50934	1412	4963	6375	13%	11		0.17%
Kingston Upon Hull, City of	41124	966	5822	6788	17%	11		0.16%
Kirklees	64310	2507	8774	11281	18%	40		0.35%
Leeds	114170	3762	14188	17950	16%	30		0.17%
North East Lincolnshire	27418	1021	5545	6566	24%	3		0.05%
North Lincolnshire	25385	964	4486	5450	21%	13		0.24%
North Yorkshire	89487	2515	9809	12324	14%	27		0.22%
Rotherham	46134	1780	7043	8823	19%	15		0.17%
Sheffield	76916	2014	12503	14517	19%	28		0.19%
Wakefield	53340	1418	5696	7114	13%	5		0.07%
York	24452	678	3164	3842	16%	11		0.29%

EAST MIDLANDS	**676248**	**18659**	**95150**	**113809**	**17%**		**189**	**0.17%**
Derby	38131	1387	5065	6452	17%	5		0.08%
Derbyshire	116720	3843	12391	16234	14%	38		0.23%
Leicester	48164	1841	9027	10868	23%	5		0.05%
Leicestershire	97173	3018	10342	13360	14%	35		0.26%
Lincolnshire	102264	3355	14831	18186	18%	21		0.12%
Northamptonshire	105711	3236	19904	23140	22%	21		0.09%
Nottingham	39786	539	7449	7988	20%	8		0.10%
Nottinghamshire	123326	1264	15544	16808	14%	56		0.33%
Rutland	4973	176	597	773	16%	0		0.00%

WEST MIDLANDS	**878821**	**29134**	**123053**	**152187**	**17%**		**323**	**0.21%**
Birmingham	177150	6065	25608	31673	18%	52		0.16%

Coventry	50302	1564	8437	10001	20%	12		0.12%
Dudley	51309	1257	7080	8337	16%	15		0.18%
Herefordshire	24456	820	3874	4694	19%	9		0.19%
Sandwell	51655	1451	9197	10648	21%	13		0.12%
Shropshire	40777	1358	5641	6999	17%	14		0.20%
Solihull	37258	850	4538	5388	14%	32		0.59%
Staffordshire	131811	5584	14070	19654	15%	59		0.30%
Stoke-on-Trent	37591	1423	5472	6895	18%	7		0.10%
Telford and Wrekin	27017	1232	4146	5378	20%	12		0.22%
Walsall	49331	1388	6524	7912	16%	16		0.20%
Warwickshire	76936	2531	13461	15992	21%	29		0.18%
Wolverhampton	41704	1180	4354	5534	13%	21		0.38%
Worcestershire	81524	2431	10651	13082	16%	32		0.24%
EAST OF ENGLAND	**847735**	**23624**	**114495**	**138119**	**16%**		**271**	**0.20%**
Bedfordshire	63993	2319	8270	10589	17%	23		0.22%
Cambridgeshire	77677	2730	10025	12755	16%	58		0.45%
Essex	202571	4520	24296	28816	14%	43		0.15%
Hertfordshire	176433	4105	21913	26018	15%	31		0.12%
Luton	31623	770	4963	5733	18%	4		0.07%
Norfolk	114226	3453	19380	22833	20%	58		0.25%
Peterborough	28879	1016	5237	6253	22%	6		0.10%
Southend-on-Sea	27234	818	3399	4217	15%	3		0.07%
Suffolk	102319	3318	13037	16355	16%	40		0.24%
Thurrock	22780	575	3975	4550	20%	5		0.11%
LONDON	**1062776**	**33222**	**177870**	**211092**	**20%**		**354**	**0.17%**
INNER LONDON	**363786**	**12275**	**69325**	**81600**	**22%**		**174**	**0.21%**
Camden	21316	823	3952	4775	22%	18		0.38%
City of London	222	3	48	51	23%	0		0.00%
Hackney	26341	864	6276	7140	27%	8		0.11%
Hammersmith and Fulham	17255	707	3385	4092	24%	12		0.29%
Haringey	33251	947	6698	7645	23%	9		0.12%
Islington	23149	715	4910	5625	24%	11		0.20%
Kensington and Chelsea	10636	286	1683	1969	19%	7		0.36%
Lambeth	27913	1027	5839	6866	25%	18		0.26%
Lewisham	34749	1196	6579	7775	22%	15		0.19%

Newham	49713	1105	8000	9105	18%	24		0.26%
Southwark	35117	1330	7136	8466	24%	16		0.19%
Tower Hamlets	36750	1445	5659	7104	19%	11		0.15%
Wandsworth	28237	1243	5870	7113	25%	22		0.31%
Westminster	19137	584	3290	3874	20%	3		0.08%
OUTER LONDON	**698990**	**20947**	**108545**	**129492**	**19%**		**180**	**0.14%**
Barking and Dagenham	30503	869	4192	5061	17%	5		0.10%
Barnet	47357	1369	8625	9994	21%	8		0.08%
Bexley	39796	1188	5655	6843	17%	7		0.10%
Brent	39539	1128	7233	8361	21%	11		0.13%
Bromley	46765	1681	6203	7884	17%	5		0.06%
Croydon	49690	1114	7541	8655	17%	11		0.13%
Ealing	42382	1151	7465	8616	20%	8		0.09%
Enfield	48644	1257	8119	9376	19%	13		0.14%
Greenwich	34703	1380	7563	8943	26%	19		0.21%
Harrow	28802	881	4920	5801	20%	10		0.17%
Havering	37068	984	3392	4376	12%	14		0.32%
Hillingdon	42601	1444	5261	6705	16%	6		0.09%
Hounslow	36050	1223	6693	7916	22%	9		0.11%
Kingston upon Thames	21051	529	2794	3323	16%	4		0.12%
Merton	23305	795	3863	4658	20%	12		0.26%
Redbridge	43982	1082	5345	6427	15%	16		0.25%
Richmond upon Thames	19936	608	2387	2995	15%	7		0.23%
Sutton	31146	961	3528	4489	14%	6		0.13%
Waltham Forest	35670	1303	7766	9069	25%	9		0.10%
SOUTH EAST	**1170141**	**38128**	**182702**	**220830**	**19%**		**464**	**0.21%**
Bracknell Forest	15123	466	2084	2550	17%	3		0.12%
Brighton and Hove	30877	1342	5007	6349	21%	37		0.58%
Buckinghamshire	75814	2326	8884	11210	15%	23		0.21%
East Sussex	67481	2276	10307	12583	19%	32		0.25%
Hampshire	175815	4328	26881	31209	18%	75		0.24%
Isle of Wight	19620	775	2875	3650	19%	10		0.27%
Kent	213574	7498	40600	48098	23%	102		0.21%
Medway	44883	1447	9605	11052	25%	4		0.04%
Milton Keynes	35562	1191	5009	6200	17%	15		0.24%
Oxfordshire	84789	2459	10461	12920	15%	14		0.11%

Portsmouth	25751	731	4980	5711	22%	11		0.19%
Reading	16722	582	2424	3006	18%	8		0.27%
Slough	19763	606	3215	3821	19%	16		0.42%
Southampton	29653	535	6979	7514	25%	8		0.11%
Surrey	140677	5303	20778	26081	19%	29		0.11%
West Berkshire	24759	1082	2837	3919	16%	16		0.41%
West Sussex	106446	3700	14428	18128	17%	50		0.28%
Windsor and Maidenhead	18968	647	2793	3440	18%	3		0.09%
Wokingham	23864	834	2555	3389	14%	8		0.24%
SOUTH WEST	**725109**	**22521**	**98310**	**120831**	**17%**		**377**	**0.31%**
Bath and North East Somerset	25333	853	2810	3663	14%	16		0.44%
Bournemouth	21316	372	3143	3515	16%	1		0.03%
Bristol, City of	49222	1783	7542	9325	19%	69		0.74%
Cornwall	74076	3134	11608	14742	20%	58		0.39%
Devon	98385	3073	11376	14449	15%	43		0.30%
Dorset	55879	1706	9028	10734	19%	12		0.11%
Gloucestershire	86244	2643	12206	14849	17%	19		0.13%
Isles of Scilly	265	5	23	28	11%	0		0.00%
North Somerset	27949	867	3633	4500	16%	27		0.60%
Plymouth	40091	1524	5556	7080	18%	27		0.38%
Poole	19810	569	2894	3463	17%	9		0.26%
Somerset	71630	1503	8256	9759	14%	48		0.49%
South Gloucestershire	40501	1156	4758	5914	15%	8		0.14%
Swindon	29348	852	4309	5161	18%	19		0.37%
Torbay	19640	812	2879	3691	19%	5		0.14%
Wiltshire	65420	1669	8289	9958	15%	16		0.16%
NO LEA OR OUTSIDE ENGLA D						70		
TOTAL CAP APPLICATIONS						**3060**		

Appendix F Young Person's use of Services

Young Person's use of Services

Code for young person: ☐☐☐   Today's date: ☐☐☐☐☐☐

INSTRUCTIONS: This questionnaire covers your child's use of services over the last 3 months (or 12 weeks)

WHAT IS YOUR RELATION TO THE CHILD FOR WHOM YOU ARE COMPLETING THIS QUESTIONNAIRE?

Please tick as appropriate Mother

Father

Guardian

Other (please specify)

CAP SERVICE USE
How did your child get referred to the CAP centre?

When did the referral to CAP take place?
Date:

Yes/no

Has the assessment taken place? (Put a cross or tick in the box)

If the assessment has taken place when was that?
Date:

Has your child got an aid?

If they have an aid, when was this received?

If yes, please specify type of aid, the manufacturer & who purchased it

Yes/ [ ] **Date:** [ ] **Type: no** **Manufacturer:**
Purchaser:

Has your child seen any of the following people in relation to their CAP referral and assessment over the last 3 months?

CAP ASSESSMENT	Who? Please specify name	Number of contacts	Average duration per contact
OCCUPATIONAL THERAPIST	[ ]	[ ] Number	[ ] Minutes
SPEECH & LANGUAGE THERAPIST	[ ]	[ ] Number	[ ] Minutes
Teacher Minutes	[ ]	[ ] Number	[ ]
Other – please specify: Minutes	[ ]	[ ] Number	[ ]
Other – please specify: Minutes	[ ]	[ ] Number	[ ]

EDUCATION SERVICES

Over the last 3 months has your child used any of the following education services?

SERVICE	Notes	Number of contacts	Average duration per contact
SCHOOL NURSE Number Minutes	[ ]	[ ]	[ ]
Educational psychologist	[ ]	[ ] Number	[ ] Minutes
Learning support assistant	[ ]	[ ] Number	[ ] Minutes
Teacher of children with specific needs	[ ]	[ ] Number	[ ] Minutes
Other – please specify: Number	[ ]	[ ] Minutes	[ ]

TYPE OF EDUCATION

Over the last 3 months, if relevant has your child attended any of the following types of schools/colleges?

TYPE OF SCHOOL* / COLLEGE For each school or college attended over the 3 months, please enter the type of school/college	School year/class? over the last 3 months	Number of weeks registered to attend including holidays?	Number of days a week registered to last attended over the last 3 months?
TYPE of school / college: **1:**			
TYPE of school / college: **2:**			

* E.g. State day/boarding school, Independent day/boarding school, Learning support unit, Special school (e.g. for learning difficulties), Sixth form college, F.E. college; University, evening class.

TRAINING

Over the last 3 months, if relevant which of the following types of youth training has your child attended?

TYPE OF YOUTH TRAINING For each training scheme attended over the last 3 months please enter the type e.g. modern national traineeship etc	Number of weeks registered to attend over last 3 months, including holidays	Number of days per week registered to attended over last apprenticeship, 3 months?
TYPE of training: **1:**		
TYPE of training: **2:**		

HOSPITAL SERVICES

OVER THE LAST 3 MONTHS HAS YOUR CHILD USED ANY OF THE FOLLOWING HOSPITAL SERVICES?

Inpatient stays

HOSPITAL	Speciality	Reason/notes	Length of stay

| | | | | Nights |
| | | | | Nights |

Outpatient attendances

HOSPITAL	Speciality	Reason/notes	NUMBER
			Number
			Number

Accident & emergency (casualty) attendances

HOSPITAL	Reason/notes (enter speciality if known)	NUMBER
		Number
		Number

Would you say that your child's communication aid needs are…? Please tick appropriate box

Very susbtantial	Substantial	Moderate	Minor

MEDICATION

Over the last 3 months has your child taken any medicine given by a doctor? [Do NOT include over the counter medicines or medicines that are used rarely. If you are unsure of the medication, please enter the reason for taking it e.g. antibiotics]

Name of medicine	Daily dose	Medication start date?	Are they still taking the medicine? (tick appropriate box)	If no, date of the final dose?

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1.			Yes	No		
2.						

Yes

No

3.		

MEDICATION continued Name of medicine	Daily dose	Medication start date?	Still taking the medicine? (tick appropriate box) Yes [ ] No	If no, date of the final dose?
4.			Yes [ ] No	

NHS COMMUNITY SERVICES

Over the last 3 months has your child used any health services in the community?

SERVICE	Notes	Number of contacts	Average duration per contact

SPEECH & LANGUAGE THERAPIST Number [   ]   [   ] Minutes [   ]

PHYSIOTHERAPIST Number Minutes [   ]   [   ]   [   ]

Occupational Therapist Number [   ]   [   ] Minutes [   ]

Doctor [   ] [   ]   [   ] Number [   ] Minutes
Practice   nurse   Number
Minutes   [   ]   [   ]   [   ]

Counsellor   Number Minutes [   ]   [   ]   [   ]

Clinical psychologist/Psychiatrist [   ]   [   ] Number [   ] Minutes
(delete as appropriate)

District nurse/health visitor: [   ]   [   ] Number [   ] Minutes
(delete as appropriate)

Other – please specify: Number Minutes

[   ]

VOLUNTARY SECTOR SERVICES
Over the last 3 months has your child used any services provided by the following voluntary sector organisations?

SERVICE	Service description/notes	Number of contacts	Average duration per contact

After school clubs, PHAB, charities, cubs etc
NAME OF SERVICE:

1.			Number
			Minutes
2.			NAME OF SERVICE:

Number Minutes

SOCIAL SERVICES

Over the last 3 months has your child used any of the following social services?

SERVICE	Notes	Number of contacts	Average duration per contact

SOCIAL WORKER Number Minutes

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Respite care Days

☐

Residential care Days

☐

Sponsored childminder Number Minutes

☐

Support group Days

☐

Other – please specify Number Minutes

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