Communication aids in the classroom: the views of education staff and speech and language therapists involved with the Communication Aids Project (CAP)

Jannet A. Wright, Caroline Newton, Michael Clarke, Chris Donlan, Claire Lister and Jasmina Cherguit

Address for correspondence:
Dr. Jannet A. Wright
Department of Human Communication Science
University College London
Chandler House
2, Wakefield Street
London WC1N 1PF

Email jannet.wright@ucl.ac.uk
Tel: 020-7679-4224

Summary of article

The findings presented in this paper are part of an evaluation study of the

Communication Aids Project (CAP). The study was carried out between July 2003

and April 2004 and looked at the impact of CAP on children receiving communication

aids and evaluated the CAP strategy of assessment and delivery. In this paper the

views of education staff and speech and language therapists who were working with

communication aid users in school are presented. They did not regard themselves as

specialists in the use of communication aids but they were the people who were

managing the introduction and facilitating the use of a child's communication aid in

mainstream and special schools.

Key words:

Introduction

Children with little or no functional speech may use augmentative and alternative communication systems (AAC) such as signs, symbols and /or voice output aids (VOCAs) to communicate. These could include Makaton signs, Picture Communication Symbols, Mayer-Johnson symbols or Blissymbols and the communication aids could be high-tech or low-tech systems. AAC users can include children who have physical disabilities such as cerebral palsy, hearing problems or learning disabilities. They may also be helpful for children who experience difficulties in communicating their ideas in a written form.

Developments in communication aids technology and the expansion of commercially available equipment, such as personal computers and speech output communication software represent new and important responses to the needs and expectations of people with disabilities. However, despite the recognition of the benefits of Information and Communication Technology (ICT) for children with communication difficulties the opportunities presented by ICT have often been underutilised (Jolleff, McConachie, Winyard, Jones, Wisbeach and Clayton 1992) This is due, in part, to the inequality in access to services (Clarke, McConachie, Price and Wood 2001) and the unclear and fragmented funding arrangements between education, health and social services (Chinner, Hazell, Skinner, Thomas and Williams 2001). The introduction of the Communications Aid Project (CAP) in England was an attempt to redress the balance, trying to ensure that children who have communication problems could achieve their full potential. As CAP provided a way for children to gain access to communication aids that could help them at school and at home and that had not been available previously.

Children for whom applications are made to CAP usually face significant barriers to participation in learning and social interaction in school and can have significant difficulties initiating and sustaining interaction (Clarke and Kirton 2003, McConachie, Clarke, Wood, Price and Grove 1999).

Background

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). It has been in operation since April 2002.

CAP manages a process of referral, assessment and provision of additional equipment and technology for pupils who have significant communication difficulties. The British Educational and Communications Technology Agency (BECTA) manage CAP for the DfES. BECTA liaises with six CAP Centres. These include: Abilitynet, ACE North, ACE Oxford, Deaf Children's Communication Aids Project (DCCAP), London CAP and SCOPE. Each of the centres has either a regional or national remit.

An evaluation study of CAP was carried out between July 2003 and April 2004 (Wright, Clarke, Donlan, Lister, Weatherly, Newton, Cherguit, and Newton 2004) to consider the impact of CAP on children receiving communication aids and to evaluate the CAP strategy of assessment and delivery. This article will focus on the findings from that evaluation study specifically the views of education staff and speech and language therapists working with communication aid users in school. These professionals were interviewed about their experiences of getting a CAP funded aid and about how children used such aids in the classroom.

Since 2002 professionals working in the Education, Health and Social Services and parents have been able to access the CAP web site and make an application for a child to be assessed for a CAP funded communication aid.

As CAP offers funding that supplements but does not replace the English Local Education Authority (LEA) funding for aids, applicants need to demonstrate what the LEA has already provided.

CAP aims to support children who have problems with:

- understanding language

- communicating verbally

- using written communication.

The communication difficulty may be a primary problem such as a severe hearing impairment or may form part of a more complex picture, such as where a child has severe cerebral palsy and multiple learning difficulties.

The evaluation study

The evaluation study of CAP, funded by the DfES, included:

- an analysis of the CAP database to explore national patterns of referral to and provision by CAP;

- data collection from staff at BECTA, the CAP Centres, local CAP contacts and LEAs using semi-structured face-to-face interviews, telephone interviews and postal questionnaires;

- individual child case studies (with) *of* 30 children;

- an exploration of service use and costs.

Eighteen children (6 girls and 12 boys) were interviewed at Time 1, before or just as they received their communication aids. As can be seen in table 1, they ranged in age from 7.06 years to 16.10 years with a median of 12.02 years. The children

represented a wide geographic spread from Newcastle to Hampshire and from Plymouth to Norfolk. Eight children attended special schools, nine attended mainstream schools and one attended both types of school. These children were invited to take part in follow-up interviews at Time 2. These interviews were conducted at least 6 weeks, up to a maximum of 10 weeks, after they had received their aid. Unfortunately, 3 children had not received their aids by the second interviews and one had received an aid that was not working so 14 Time 2 interviews took place.

A description of the children who took part in this evaluation study is given in table 1.

Insert table 1 here

The education staff who were interviewed were in mainstream and special schools and included teachers, LSAs and speech and language therapists. They were not necessarily experts in the area of communication aids. The education staff and therapists involved with these children were interviewed twice.

Insert table 2 here

The initial interviews with the professionals concerned their experiences of the CAP process, the anticipated use of the aid and their 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 the child's work at school. The interviews were recorded using [CTI]Pulsar PC telephone and room recorder.

Analysis of the data

The professionals who were interviewed acknowledged that if funding from CAP had not been available, many of the children might not have been able to receive

communication aids at all. This was especially true with the VOCAs where staff were aware that these were expensive items of equipment.

Teachers that were interviewed for this study were generally positive about the assessment that took place when a child was referred for a CAP funded communication aid. The assessment involves the consideration of health, education and social issues as well as an evaluation of the child's strengths and needs when communicating with family, friends and professionals. The number of people involved in the assessment varied depending on the needs of the child but may include LSAs, specialist teachers, SENCOs, class teachers, speech and language therapists, physiotherapists and occupational therapists. Children of school age were usually assessed in school and their parents are invited to attend.

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.

The most positive comments came from those professionals who felt that they had been fully consulted on how the aid might be used in the school setting and the impact of the introduction of such an aid into the classroom.

One speech and language therapist suggested that as part of the assessment process education staff should submit a plan of how the aid might be used. This would be a way of ensuring that the education staff had been consulted and were committed to the use of the aid in school. It would also provide an opportunity for staff to consider the implications of a child using a communication aid in their

classroom.

Impact of the communication aid in the classroom

Specific questions were asked about the children's quality of life, these included questions about the ways in which children interacted with others, joined in discussions in class and the amount of support that they needed in class. The same questions were asked before and after a child had a CAP communication aid but there were no marked changes in the views of the education staff. Their responses can be seen in figure 1.

Insert figure 1 here

The fact that there were no marked changes in the quality of life indicators may be due to the short period of time between the two interviews. However, individual staff reported a positive impact on children's participation in learning experiences.

When working with children in the classroom the use of a communication aid made it possible to change the pattern of interaction between child and teachers.

For example, for a child with a hearing loss the teacher acknowledged that the child was no longer isolated with her classroom assistant:

'… 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'.

'it's opened up the way that we can question her or she can ask things of us'.
(Teacher)

There were several examples of positive changes for children using VOCAs. In the example described below the impact of the aid was seen in a short period of time.

CAP has provided Paul with a Dynamyte. 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. 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 the Dynamyte had made to Paul. He has become *'more vocal'* since receiving the aid, with an increase in confidence which the therapist suggested is due to the fact that if he is not understood now he can use 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.*'

Other positive experiences that staff reported included children becoming more actively involved in discussions in the classroom. For example a teacher said of one girl, *'she has been very motivated to use the aid. Before she had the aid we had to rely on yes/no questions to communicate with her.'*

' 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)

A class teacher working with another child 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)

One LSA described how having a VOCA has helped one child increase his confidence and his contributions to class discussions:

'he's confident to dive in with the answers now.'
One child who is dyslexic and now uses a laptop with specialised software was described as 'more willing' as well as 'more able to produce written work'.
Those interviewed indicated that over half the children enjoyed using the aid

Insert figure 2 here

Managing expectations
Teachers were aware that parents had high expectations about the extent to which the aid would be used in the classroom. They found themselves trying to manage the parents' expectations and at the same time integrate the use of the aid into classroom work. Some respondents found it particularly hard to manage when the

child was the only one in a mainstream classroom using a communication aid. However the same issues could arise even when teachers were familiar with communication technology. For example, one of the children included in this study used a symbol book previously. Since receiving his CAP communication aid, his parents have been very keen that the new aid should be used fully in the classroom. Although the teacher is familiar with communication aid technology she has struggled with this piece of equipment because she has not yet received had any training. She also commented that it would have been helpful 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)

Training

The interviews revealed that the designation and number of staff involved in training varied between schools and was often dependent on the type of aid issued. For example, when children 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 an LSA and usually the SENCo or specialist teacher rather than any class teachers. In some schools the class teacher was not released for training while in others specific individuals were targeted. In one school the child's one-to-one support worker and the school's computer technician were trained.

Those who were involved with the initial training were very positive but many recognised the need for further training once the child had started using the aid. In some cases further training had been planned during the assessment process while other staff had to enquire about further training opportunities. Manufacturers of some aids provided an initial generic training session. The professionals working with the child in school would then personalise the aid for the child. One teacher who was a specialist in using communication aids 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 find out'.'

'when we did the training we invited [the child's new school] 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'

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)

Interest was shown by some interviewees in making links with other professionals working with communication aids to share experiences and expertise. This is shown in the following example.

> 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 were planning to set up a support group for classroom assistants who are working with children with VOCAs. This was because it was recognised that assistants are scattered around the district in different schools and they had reported 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.'

Discussion

In this paper the focus has been on the views of the education staff and speech and language therapists about the impact of CAP funded communication aids on the children with whom they work, issues of managing the aid in the classroom and training.

Education staff and therapists viewed the provision of communication aids by CAP very positively. They were able to provide specific examples of how children had benefited from the aid. This was particularly encouraging in view of the short time between the first and second interview. Although, it is possible that their positive responses could be due to the initial enthusiasm of a child having an aid that they did not have before or the use of one which was more powerful than a previous one. It would be useful to talk to the staff at the end of the school year to see if they were still as positive about the impact of the communication aid.

The assessments that were carried out prior to the provision of the aid were also viewed positively. The staff involved in the assessments felt that they had benefited from the experience. However, where staff had not been involved then they were not so positive. If education staff are not involved in the assessment process there is a risk that they will not be aware of what can be achieved by a child using a communication aid. Staff involvement in a school-based assessment is an excellent way to continue their professional development. However this raises a management issue for schools about releasing staff to be involved in such assessments.

It was apparent that communication aids had a positive impact on interaction in the classroom even in the short period of time between the first and second interview. The staff that were interviewed revealed an awareness of the need to manage the

child and their aid in a classroom with other children. Alant (2003) has acknowledged that 'Teachers…often express a feeling of powerlessness because of the difficulties involved in balancing individual attention to children and attending to the group' (p.336). The education staff also highlighted the fact that they had to deal with the parents' expectations about how much a communication aid would be used in the classroom. There is clearly a need to plan for ways in which a communication aid will be used in the classroom even before the assessment takes place. The work by Clarke and Price (2001) entitled *Children using Communication Aids with their Classmates: A Practical Guide to Improving Interaction* is a valuable source for education staff who have to plan for ways in which a communication aid will be used in the classroom.

The initial training provided when a communication aid was delivered was well received by teachers and therapists. In many cases the training had been planned at the time of the assessment. However, there was an issue about the number of people from a school who were involved in the initial training as it was not always possible to release teachers for training. Several people recognised the need for further training once the child had started using the aid and this is in keeping with the findings from a survey of schools in the south-west of England (Chan 2004) where it was found that further training was needed once an aid had been introduced into a school. Training has been provided at a generic level through CAP funding and this will need to continue but there is clearly a need for LEAs and schools to focus on training for child-specific issues. Teachers who identified themselves as a specialist teachers were sometimes still unsure about how to find out about further training or what would be the most helpful further training for them.

Soto (1997) in the USA, supported the value of further training and stressed that a teacher's sense of self-efficacy was a key factor in their willingness and commitment

15

to the use of AAC systems in the classroom and their perception of the child's ability to communicate effectively. One teacher who had had experience of a communication aid in a school some years earlier acknowledged that without constant use *'the little bit of training we had sort of filtered away.'* In the UK teachers and therapists have little opportunity for detailed training about communication aids (Wright and Kersner 1998). Teachers and therapists *'… have to be guided as to how to move beyond just requesting the production of predetermined utterances to use available communicative items in more creative ways and for more challenging purposes'* (Alant 2003 p. 354). If they are not able to do this children's learning may be slowed down.

Providing education staff with ideas and suggestions about how to use the aid in the classroom could be part of the further training but also needs to be thought about when the assessment for an aid takes place. Pennington and McConachie (1999) suggest that when a communication aid is being introduced to children some of the training time is should focus on how to use discourse strategies so that the aid is used to support interaction with other people.

Some teachers expressed a desire to make links with other professionals working with communication aids. They were aware that this already happens with some of those involved with CAP but they were looking for support at a more local level. This is where local CAP workers who have expertise in the area of communication aids could be valuable.

Future implications

CAP has provided many children with communication aids that they would not have otherwise received. The professionals interviewed in this study did not regard themselves as specialists in the area of communication aids and yet they were the ones who were managing the introduction and facilitating the use of a child's new

communication aid in mainstream and special schools. Although the sample of education staff in this study is small nevertheless their views highlight some of the issues facing all teachers who are working with children with communication aids.

It is crucial that there is support at a local level for monitoring and supporting children and teachers' progress in their use of aids. The additional learning required by education staff in order to facilitate the successful use of aids in the classroom has to be recognised. There is also a need for further training to occur after the initial introduction of a communication aid and that this needs to be available at different levels.

REFERENCES

Alant**,** E. (2003) 'A developmental approach towards teacher training: a contradiction in terms? In Von Tetzchner, S. and Grove, N. (Eds) *Augmentative and Alternative Communication Developmental Issues* Whurr Publishers: London and Philadelphia

Chan,S. (2004) Barriers to AAC implementation in school *Communication Matters,* 18 (1), 11-13.

Chinner, S., Hazell, G., Skinner, P., Thomas P. and Williams, G. (2001). *Developing augmentative and alternative communication policies in schools* www.ace-centre.org.uk

Clarke M.T. and Kirton, A. (2003) Patterns of interaction between children with physical disabilities using augmentative and alternative communication and their peers, *Child Language Teaching and Therapy.*19,135-151.

Clarke, M.T. and Price, K. (2001) *Children using Communication Aids with their Classmates: A Practical Guide to Improving Interaction* London: Institute of Child Health

Clarke, M.T., McConachie, H.R., Price, K. and Wood, P. (2001) Speech and language therapy provision for children using augmentative and alternative communication systems, *European Journal of Special Needs Education* 16, 41-54.

Jolleff, N., McConachie, H. R., Winyard, S., Jones, S., Wisbeach, A. and Clayton, C. (1992). Communication aids for children: Procedures and problems. *Developmental Medicine and Child Neurology*, 34,719-730.

McConachie, H.R., Clarke, M.T., Wood, P, Price, K. and Grove, N. (1999*) Evaluation of speech and language therapy for children using communication aids*, final report to the NHS Executive

Pennington,P. and McConachie,H. (1999) Mother-child interaction revisited: communication with non-speaking physically disabled children *International Journal of Language and Communication Disorders* 34 (4), 391-416.

Soto, G. (1997) Special education teacher attitudes toward AAC: Preliminary survey *Augmentative and Alternative Communication* 13, 186-97.

Wright, J.A.,Clarke, M., Donlan, C., Lister, C., Weatherly, H., Newton, C., Cherguit, J. and Newton, E. (2004) *Evaluation of the Communication Aids Project (CAP)* DFES Research Report 580.

Wright, J.A. and Kersner, M. (1998) Collaborative working practices in schools for children with physical disabilities *International Journal of Language and Communication Disorders* 33 (Supplement), 626-633.

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)	School	Aid	Access	Mobility	Weeks between T1 - T2
1	7.06	F	Cerebral Palsy & Global developmental delay	Special	VOCA	Direct	Ambulant	8
2	7.10	M	Trysomy 8	Special & Mainstream	VOCA	Direct	Ambulant	6
3	10.01	M	Cerebral Palsy	Mainstream	VOCA	Direct	Wheelchair	6
4	10.11	M	Worster Drought Syndrome	Special	VOCA	Direct	Ambulant	10
5	11.07	M	Severe learning disability & Dyspraxia	Special	VOCA	Direct	Ambulant	6
6	11.09	M	Dyslexia	Mainstream	Laptop	Direct	Ambulant	6
7	12	F	Cerebral Palsy	Mainstream	Laptop	Direct	Wheelchair	7
8	12.03	M	Sensori-neural hearing loss & Cerebral Palsy	Mainstream	VOCA & Laptop	Direct	Ambulant	6
9	12.03	F	Cerebral Palsy	Special	VOCA	Direct	Wheelchair	6
10	12.11	F	Bilateral sensori-neural loss	Mainstream	Laptop	Direct	Ambulant	6
11	13	M	Specific learning difficulty	Mainstream	Laptop	Direct	Ambulant	8
12	14.02	F	Cerebral Palsy	Special	VOCA	Direct	Wheelchair	6
13	15.07	M	Cerebral Palsy	Special	VOCA	InD	Wheelchair	6
14	16.10	M	Cerebral Palsy	Mainstream	VOCA	InD	Wheelchair	10
15*	12.10	M	Worster Drought Syndrome	Special	VOCA	Direct	Ambulant	n.a
16*	13	M	Arthrogry-posis, dyslexia	Mainstream	Recording	Direct	Wheelchair	n.a
17~	14.04	F	Spinal Muscular Atrophy	Mainstream	Recording	Direct	Wheelchair	n.a
18*	15.05	M	Speech and language impairment	Special	VOCA	Direct	Ambulant	n.a

VOCA	Voice Output Communication Aid
D	Direct (finger, eye or light beam pointing)
InD	Indirect (switch or partner scanning)
*	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

Table 2 Interviews with professionals

	First interview	Second interview	Total
Teacher/LSA	13^	8*	21
SLT	8	6	14
Total	21	14	35

^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, second interviews were not conducted with their teachers.
A further 2 teachers were not interviewed a second time 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.
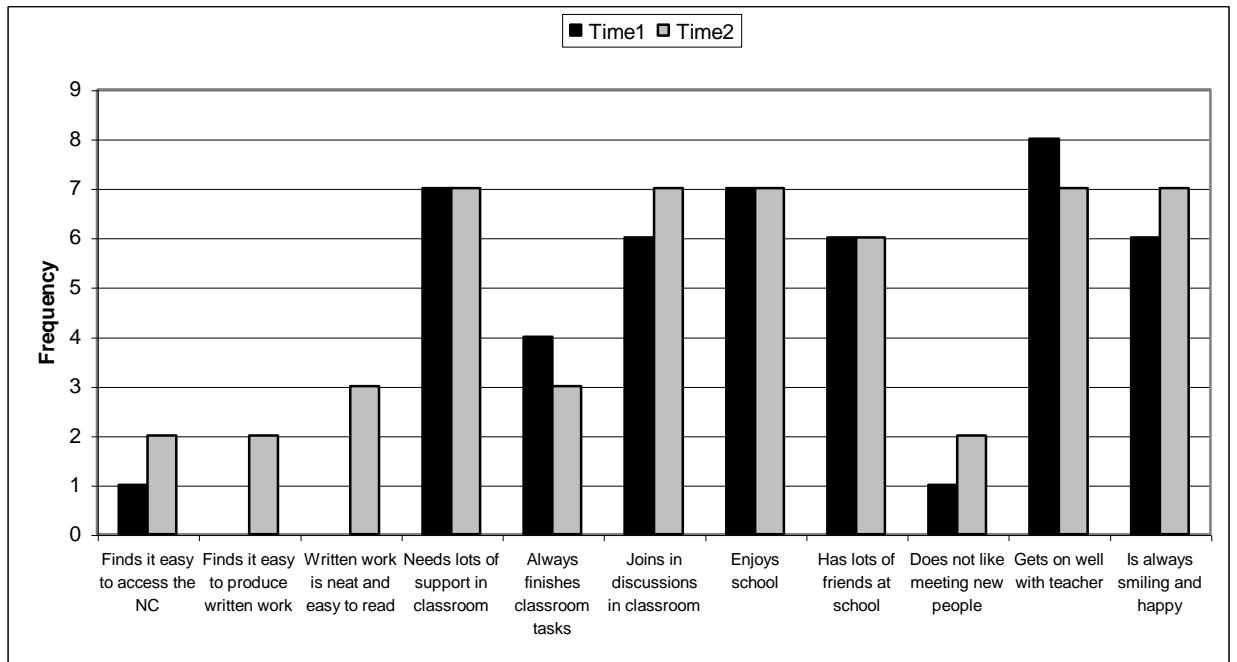
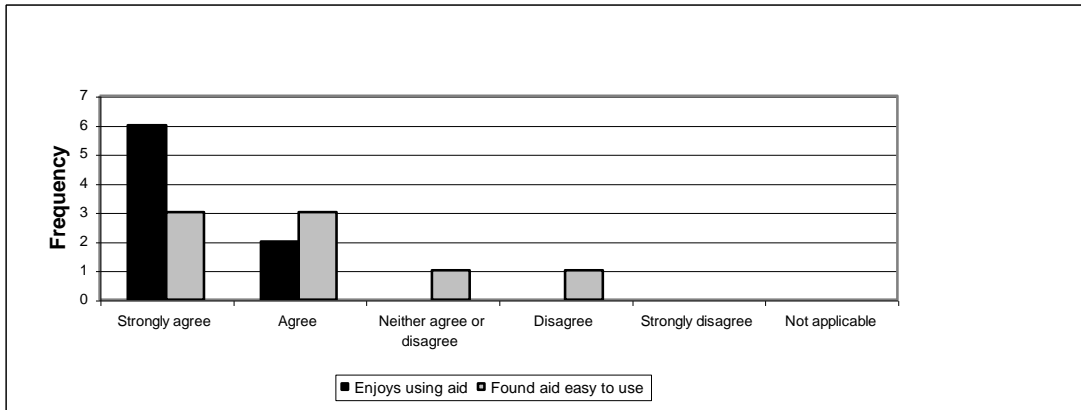Figure 1 Education staff views on the quality of life indicators (strongly agree + agree) at T1 and T2

Figure 2 Views of the education staff on children's response to the aid