Portable computers for teachers and support services working with pupils with Special Educational Needs: An evaluation of the 1999 United Kingdom Department for Education and Employment scheme

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Abstract

This study arose from the distribution of portable computers ("portables") to special educational needs coordinators and support services by the Department for Education and Employment (DfEE) through Standards Grant 36 in mid 1999. The study comprised two successive questionnaires. The aim of the surveys was to elicit the benefits of portables in relation to the special educational needs coordinator/support service roles as well as to evaluate this process of distributing resources.

Questionnaire A to local education authorities (LEAs) was returned by 96 LEAs (a 64% return rate). There were 778 returns of questionnaire B from recipients of portables and 405 returns from the matched group of non-recipients.

Overall the distribution of portables under this grant was well-regarded by LEA personnel, particularly in the smaller authorities, with reservations relating mainly to the lack of time to administer the scheme. The guidance from the DfEE was regarded as helpful with inherent (valued) flexibility. Amount and level of training appeared to have varied greatly across LEAs but where training had been relatively substantial there was evidence of its impact on teachers’ reported use of the portables. The scheme was welcomed by school
and, particularly, support service staff. However all recipient groups tended to reflect some disappointment with what the portable provided in practice.

Three particular aspects are discussed in more detail. First, in relation to time and workload issues, it was reported that teachers were spending considerable “non work” time in learning to make good use of the portables. Second, there were considerable training needs for teachers and others, spanning a wide range of levels. Third, the position of support service staff warranted more attention as their apparently comparatively disadvantageous position has implications for wider changes concerning centralised LEA, as opposed to school-based, resources.

**Introduction**

A Department for Education and Employment (DfEE) survey published in November 98 (DfEE, 1998a) reported that 45% of computers in primary schools were over 5 years old and on average each computer in primary schools was shared by 18 pupils. In this context, additional machines and in particular portable (“laptop”) machines, were likely to be well received by schools in 1999. An evaluation of teachers’ use of portables (BECTa, 1998) gave very promising indicators of the likely value of these machines. The 1998 survey was not focused on the special needs context specifically but is likely to have produced generalisable findings. Strengths of portables noted in that study included the potential for integrating the computer into teachers’ personal and professional lives, the facility to draw on internet based support and professional development, a substantial increase in teachers’ IT skills and extended professional development in non-work time. Government support for information and communications technology (ICT) in the special educational needs context was signalled in the 1998 special educational needs action programme which stated that “There will be more effective and widespread use of ICT to support the education of children with special educational needs, in both mainstream and special schools” (DfEE, 1998b, 39). Reflecting this, the national standards for special educational needs specialists (Teacher Training Agency, 1999) and for special educational needs coordinators (TTA, 1998) include reference to capabilities in using and evaluating ICT as a teaching resource and in managing records.

The targeting of special needs support services and school special needs coordinators can be understood in the wider context of technology and pupils with special needs. Much information and communications technology has been seen as being of particular value for pupils with special educational needs and their teachers. For example, the UK evaluations of Integrated Learning Systems (co-ordinated by BECTa) showed that these programs were seen by teachers as particularly suitable for low attainers (Lewis and Costley, 1998). This is not just a UK phenomenon. The third international study into maths and science standards across 41 countries found that this pro-special educational needs bias in the use of ICT in classrooms applied in most of the countries.
surveyed (Harris et al., 1997). Interestingly, this accords with greater ICT use in special compared with mainstream schools. For example, a DfEE statistical analysis of ICT use (Johnston, 2000) found that 86% of primary schools but 92% of special schools were connected to the internet. Consistent with this, the same survey reported greater confidence in ICT use among staff in special schools compared with staff in primary or secondary schools.

Work on IT and special needs is fragmented but ten main functions of IT in relation to pupils with special educational needs can be discerned (discussed further in Lewis, 1999). In summary, these encompass:

• interaction (eg, using devices activated by movement, such as sound beams);
• communication (eg, devices activated by a puff of air or muscle contraction);
• physical control (eg, epileptic fits may be controlled sufficiently, using technological devices, to enable pupils experiencing these difficulties to participate in inclusive classrooms);
• access to the normal curriculum (a vast array of devices, linked with hardware eg, alternative “mouse” devices giving pupils access to curricula from which they would have been barred previously);
• subject-linked learning (including image manipulation, art appreciation using museum or gallery based packages, simulations, databases etc.);
• reward/ motivation (certain pupils may enjoy working on a computer because it frees them from interacting with other people but teachers may have reservations about encouraging such isolation);
• IT skills (including keyboard skills, information retrieval);
• assessment (eg, linked with particular packages, such as dyslexia-focused);
• record keeping (eg, managing the Code of Practice);
• teacher support (eg, via the electronic SENCO Forum and inclusion web site).

Given this wide scope for use of ICT in the special needs context, the extending of teachers’ skills and familiarity in this area was an obvious and reasonable government priority.

It was in this context that in January 1999 the DfEE announced Standards Fund Grant 36 which was to provide a proportion of LEA support services and special educational needs coordinators with portable computers to aid in their work with pupils with SEN. Expenditure for this grant totalled £4 million and represented 100% of the costs. The DfEE anticipated that 2000 portables would be funded from the grant. All LEAs received an allocation from this fund based on (a) funding for at least two portable CD-ROM systems for special educational needs support services plus (b) additional portables to LEAs for special educational needs coordinators. In relation to the latter, priority was to be given to primary schools taking into account numbers of pupils on the special educational needs register and/or numbers with statements of SEN, compared with the numbers on roll. The formula relating to (b) placed LEAs in one of five bands linking numbers of primary school pupils on roll with number of systems to be allocated. A detailed minimum specification including 32MB memory expandable to 84MB, 2.1GB

hard disk, internal CD ROM drive, a range of pre installed software, internet connection for a year and a colour printer was recommended. Thus LEAs had room for flexibility in specification of individual systems and choice of school to which to allocate the portables, sometimes informed by telephone conversations with relevant DfEE personnel.

**Method**

*Design*

The design of the study involved two stages; firstly, identifying how LEAs had responded to the Grant 36 initiative, and secondly, how effective these responses had been in ensuring use of the equipment provided through the Grant. We sent questionnaires to LEAs (questionnaire A); these were designed to elicit LEA coordinators’ views on the advantages and disadvantages of the Grant scheme, the numbers of machines bought and the hardware and software selected, the criteria for selection of participants and the support (training etc) provided to participants. The information from Questionnaire A was used in three ways: to identify the respondents for Questionnaire B; for the analysis of LEA responses; and for merging with the responses to Questionnaire B to show the linkage between LEA policy and outcomes for recipients. Questionnaire B was sent to school-based recipients of portables in primary schools and support services as well as to an approximately equal number of randomly identified non-recipients in the two settings. Both questionnaires contained mainly closed questions, but offered the possibility of open-ended comments; typical comments have been quoted in the Results.

*Sample*

Questionnaire A was sent to all 150 LEAs, addressed to the person responsible for administering Grant 36. This person was asked to identify recipients of portables among primary school staff (n = 1375), and support staff (n = 233). Questionnaire B was then sent out to these identified staff and, for non-recipients (n = 1214), to the special educational needs coordinators in a sample of schools in the LEA identified by choosing every nth school from the LEA list, where n was a suitable number, excluding recipient schools. For support staff non-recipients Questionnaire B was sent to the LEA support service (n = 194). It was difficult to obtain strict comparability across LEAs because, as Questionnaire A indicated, policy differed markedly across LEAs; some distributed numbers close to the nominal allocation at £2000 per machine, some distributed a larger number of cheaper machines, and some used their own money to allocate a machine to every special educational needs coordinator in the target group rather than selecting recipient special educational needs coordinators. In addition, despite instructions accompanying the Grant, some LEAs allocated all the machines to special educational needs coordinators and none to support staff.

*Questionnaires*

Questionnaire A, to LEA representatives, asked first what criteria they had used to allocate machines (for example the range of pupils supported by the support service, or the IT skills of a school special educational needs coordinator), whether they had been involved in other initiatives to supply portables, what their views of the advantages and disadvantages of the Grant system were, the administrative time involved spent by the
LEA in administering the Grant, and the number of machines bought. They were also asked to give, separately for special educational needs coordinators and support staff, details of the hardware and software purchased, arrangements made for backup and training, and information on who would own the machines at the end of the Grant period. As the Grant allocations to each LEA and its school population were known, the cost per machine and school population per machine could be calculated, as well as the days administration per machine, the number of alternative sources of backup, and training, for staff, and a ranking of the amount of extra software bought (excluding the standard software supplied with almost all machines). These categories gave some measure of whether an LEA had decided to spread its resources thinly or go for more concentrated high-quality provision, and could be related to recipients’ responses, as described in the next paragraph.

Each LEA was identified by its DfEE code number and these code numbers were also noted on the questionnaires for support staff and special educational needs coordinators. This allowed data for individual respondents to be matched to that for their LEAs, so that individual views could be matched to LEA provision. Special educational needs coordinators were asked about their schools and the number of pupils with special educational needs at different stages of the Code of Practice; support staff were asked which support service they were in. Both groups were asked if they had access to IT at work and at home, when they received their machine (if applicable) and about the types of training they had received. They were also asked how much use they made of a wide range of types of software, how useful they anticipated a portable to be for a range of educational tasks and how useful it had been in practice, as well as their overall assessment of the value of a portable. They were also asked about their responsibility for a range of special educational needs administrative tasks. Finally they were asked a range of questions about advantages and disadvantages of the Grant 36 system which were based on the open-ended answers given by LEA respondents: this allowed a comparison between LEA and recipient perceptions.

Procedure
Data were analysed using SPSS version 6.1 to provide both descriptive and inferential statistics. Most of the questions were closed, respondents being asked to tick yes/no boxes, give numbers of machine or pupils, or choose from predetermined categories; four-point Lickert scales were used when they were asked to make a value judgement on how useful or important an aspect of the Grant scheme was. Open-ended questions were used to collect LEA respondents’ opinions of the advantages and disadvantages of the Grant scheme, in order to allow respondents freedom to give a wide range of opinions. These were categorised when most of the LEA responses were in; as many respondents mentioned several advantages or disadvantages, each category was entered as a separate yes/no variable. In view of the quality of questionnaire data, the fact that many categories were nominal and that some critical variables such as the allocation of grant funds were not normally distributed, non-parametric statistics (chi-square for nominal data and Spearman correlations for ordinal data) were used for many analyses, including those on the smaller LEA respondent sample, with analysis of variance being
used where appropriate on the larger special educational needs coordinator/support staff sample.

**Results**

We had returns from 96 LEAs (representing a return rate of 64.0%). This return rate was very good for an unsolicited postal questionnaire and there were no obvious gaps in type of LEA returning the form so there was a sound basis for analyses. Just over half the school-based recipients of portables (n = 689) and one quarter of the randomly identified school-based staff not receiving portables (n = 337) returned their questionnaires. Numbers of support staff receiving portables were comparatively low because LEAs were not encouraged, through the DfEE specification, to allocate more than two machines to support services and some chose not to allocate these but gave them to schools instead. In support services approximately one third of recipients of portables (n = 89), and a similar proportion of non-recipients returned their questionnaires.

In general, the open-ended responses indicated support from LEA personnel for the way the scheme had been carried out but there were some aspects which raised concerns. Several aspects were welcomed by a fifth or more of LEA respondents. These were:

- the targeting of money where it was needed;
- targeting of ICT for special educational needs (not previously funded specifically in most authorities);
- the boost to morale from the knowledge that the DfEE valued special educational needs;
- the clear guidelines which made for easier administration;
- transparency of the criteria (a few respondents commented that this allowed them to justify their allocations to non-recipients); and
- helpfulness of the DfEE in granting LEAs flexibility (for example, in response to telephone enquiries).

There was a range of other comments, some related to the situation of particular authorities. Some comments were contradictory between authorities—many valued the flexibility to use their own suppliers or buy machines to match existing stock or particularly suited to the needs of their staff, while others complained that a national purchasing recommendation would have saved the money and time expended in making deals locally. LEAs who had made enquiries to the DfEE praised the helpful responses they had received, and this willingness to advise should have been publicised more widely. For example a suggested recommendation about which portables to select, with allowance for flexibility, would probably have been more cost-effective than the more open arrangement, given that many authorities ended up choosing similar machines to one another through local decision-making.

The most common adverse open-ended comments from the LEAs, about the scheme were:

- the short time-scale for authorities to respond;
- the lack of warning:
• inequity and divisiveness between recipients and non-recipients within authorities. One respondent wrote: “We received sufficient funding for 16 laptops—allocation of one per partnership of schools—VER Y divisive”. Some authorities were using their own money to top up the fund to overcome this difficulty;
• lack of money for training, support, or LEA administration—a number of authorities provided training to accompany machines, or extended warranties, out of their own funds. However, as most authorities bought more machines than their nominal allocation it may have been the DfEE’s intention that some of the nominal £2000 cost per machine be allocated for these purposes, given that actual costs were well below this; but that authorities had tended to maximise the number of machines distributed;
• inequity and divisiveness between authorities (apparent in the DfEE allocations which were divided into broad bands which covered a range of pupil populations). Overall, the larger LEAs did less well in terms of proportional allocation of machines and this was implicit in some evaluative comments about the scheme. The number of portables allocated per LEA ranged from 3 to 25 depending on the size of the LEA and some very small LEAs could allocate machines to all potential recipients;
• misleading initial publicity which had implied that all special educational needs coordinators would receive machines. There was some resentment that local authorities had been the “fall guys” who had to explain that this was not the case;
• lack of time to check the IT skills of potential recipients or the requirements of their schools (leading to absolutely or relatively unsuitable recipients; some schools had not been alerted in time and were still putting in bids after all machines had been allocated);
• the (perceived) overly restrictive guidelines were seen as preventing LEAs from directing machines to the most suitable recipients (eg, portables had been allocated to small schools with high proportions of children with special educational needs rather than to larger schools with lower proportions but higher absolute numbers and administrative need).

Thus, overall the distribution of portables under this grant was well-regarded by LEA personnel, particularly in the smaller authorities, with reservations relating mainly to the lack of time to administer the scheme. The guidance from the DfEE was regarded as helpful with inherent (valued) flexibility. LEAs had tended to adhere to the guidelines concerning specification and chose to buy more machines at this specification rather than fewer machines at a higher specification. Overall, machine specification and support for support services tended to be at a slightly lower level than for schools. Given the differing circumstances of LEAs, it may have been advisable to offer a national scheme with an opt-out for authorities which wished flexibility. Thus a national purchasing recommendation, coupled with an adequate warning period, would free administrative time for identifying recipients, which can only be done at local level. Further, it seems likely that clearer notification is needed that authorities can ask for discretion where it is justified by special circumstances, or potentially wasteful overlap between a current initiative and action they have already taken.
Distribution/recipients of portables to schools

Most LEAs followed DfEE guidance in focusing the allocation of portables under Grant 36 on primary schools. The questionnaire to respondents asked them their position in the school. One might have expected that most of the school based recipients of portables for work with pupils with special educational needs would have been special educational needs coordinators. While this was the case (60% of school recipients were special educational needs coordinators) a large number of non-special educational needs coordinators were also recipients. This was particularly likely to be the case in schools in which numbers of pupils at various stages of the Code were low (ie, under 10 pupils at each of stages 1–5 of the Code). We received some telephone reports that the new machine was being used by the headteacher who was not the special educational needs coordinator, for management tasks for example, and an older machine was being handed on to the special educational needs coordinator(s). Willingness to make these unsolicited telephone calls suggests considerable resentment.

The DfEE specification stated that the allocation of portables to schools should reflect that school’s proportion of pupils on the SEN register or with statements of SEN. Consistent with this, school recipients worked in schools with significantly higher absolute numbers at stages 1, 2, 3 and 5 (but not stage 4). These criteria (particularly numbers in the wider special educational needs group) also featured strongly in the LEAs’ reported basis for allocations. Reports from both levels indicate that the policy specification was achieved in practice.

Use of IT at home for work differed between specialist special educational needs coordinators and others. Specialist special educational needs coordinators were more likely to use IT at home for work than non-specialists but there was no difference in the likelihood of use at work. Specialists were more likely to have received IT training overall but less likely to have received introductory training. Given the other characteristics of this group it may have been that, as indicated by higher home use, they were more IT/special educational needs “aware”. As these people were special educational needs specialists it may also have been that a “conscientiousness” factor was operating for this group (see Campbell and Neill 1994, where “conscientiousness” was defined in terms of the hours worked beyond those directed).

Distribution/recipients of portables to support services

The DfEE specification indicated that support services should receive at least two portables and LEAs had discretion about the basis for their allocation. LEA respondents reported that the allocation of portables to support services reflected the range of pupils dealt with (56.4%), existing provision of portables (53.2%) and/or a request from the service (28.7%). There were no significant differences in allocation related to the type of service, but recipient respondents were significantly more likely to be heads of services and less likely to be other staff. This may have been reflected in these respondents’ strong emphasis on the value of portables for such services as indicated in their ratings of their usefulness across the range of educational functions covered in the questionnaire.
Administration of allocation of portables under Standards Grant 36

The time reported by LEA respondents to administer Grant 36 varied between 1 half day (3 LEAs) and 30 half days (3 LEAs) with 4 or 6 half days being the most frequently occurring responses. Authorities in the lowest quartile for half-days on administration were significantly less likely to see no advantages in the scheme (p < .01) than those in the next quartile. The effects in the following paragraph suggest that such authorities may have seen no disadvantages because they had not fully engaged with the scheme.

Results from linking questionnaire A and questionnaire B showed that the “number of half-days administration spent per machine” had a series of significant correlations with the responses of school-based recipients on a range of liaison and related tasks. In authorities which had reported, in questionnaire A, spending more time on administration of the scheme, school-based recipients reported they were more likely to help teachers support individuals, liaise with parents, liaise with the LEA support services, liaise with statutory services, liaise with the LEA about assessment, and act as the “responsible person”. In summary, the extra administration time appeared to have been well spent in ensuring recipients were able to make effective use of the machines allocated to them.

Telephone enquiries from support service personnel and comments on their returns to questionnaire B indicated that machines allocated to those services had not necessarily been reallocated after staff changes. Consequently, tighter monitoring of the distribution of support service machines may be needed in some LEAs.

There are a number of relatively minor practicalities which discouraged teachers from making maximum use of the portable. One concerned the insurance issue; if the portable was not covered by schools’ insurance then some teachers were unwilling to take it home. This indicates that there is a need to explore ways in which different LEAs tackled this issue and whether, for example, there are routine LEA policies (eg, reinsurance/administration) available to cover this (which may, presumably, affect a large number of schools in any one LEA).

Technical support and training

LEA respondents to questionnaire A reported most technical support to schools came through warranties (68.1% of LEAs). In addition, nearly half the LEAs provided technical back-up to schools (47.9%) or support services (39.4%) through service level agreements with the LEA. In some LEAs this was reportedly supplemented by in-house expertise in the schools (24.5%) or support services (9.6%). In only four LEAs was there reportedly no technical back-up to schools. The support services were reportedly slightly less well-resourced in terms of technical back-up: 13% of LEAs reportedly gave no technical back-up to these services, in half, support services had access to only one source of technical back-up. In some cases this may have been because they were considered already to have the necessary expertise, as discussed below.

Responses to questionnaire B by non-recipients noted the anticipated need for training as likely to influence the effectiveness of any further provision of portables. Similarly,
recipients noted the need for, and value of, training. The following comment was typical:

*It’s already proving essential—but how much MORE useful if we also had special educational needs management software and training in how to use what is on the machine ... I don’t know how to use much of what’s on it and shouldn’t it link with the office system somehow? I don’t know what software is available or how to rate one system against another for our needs.*

In some cases training was needed at quite basic levels, suggesting that machines had not been allocated to those best able to use them:

*In [LEA] the machines were delivered to the Town Hall where each special educational needs coordinator had to pick them up. There has been no follow up or training. I have had a training session with one special educational needs coordinator as she couldn’t get the printer to work [having received the machine 6 months previously]. She hadn’t even loaded the driver. She was trying to print through Microsoft Fax ... One of our own members had a laptop for two weeks, she came in to me in some distress saying that she hadn’t been able to charge it up as the power lead wouldn’t fit. When she showed me what she meant, she had been trying to use the printer lead.*

*(e-mail message, following return of questionnaire B)*

There was a potentially wide base of training but it is not clear from the findings of either questionnaire how effectively it was, or could be, co-ordinated. There was no associated training for school staff in under one tenth (9.4%) of LEAs and/or for support service personnel in one fifth (21.9%) of LEAs. To some extent the latter may have reflected the fact that as some support service recipients indicated, they were the ones conducting the training. However this does not in itself remove the need for them in turn to receive training. Where a varied menu of training was available, recipients of portables were making use of this breadth.

*Use made of the portable*

There were no statistically significant differences between questionnaire B respondent groups in their assessment of the overall value of a portable. However there was a tendency for support service recipients to be more enthusiastic than were the school-based recipients and for non-recipients to be more enthusiastic than were recipients. The latter may reflect the fact that as some support service recipients indicated, they were the ones conducting the training. However this does not in itself remove the need for them in turn to receive training. Where a varied menu of training was available, recipients of portables were making use of this breadth.

When it came to the effectiveness of portables in practice, non-recipients (school-based and support service) tended to rate them higher than did recipients. As discussed below, many non-recipients had access to IT and may already have been more experienced users than some recipients. Word-processing programs were used regularly by nearly three-quarters of respondents to questionnaire B, particularly by those working in schools. Special educational needs management programs were also, as might be expected, a major use by recipients in schools, with nearly two-thirds using them sometimes or regularly. Many respondents wrote of the need for a common LEA approach or program to be supplied to aid transfer of information within the LEA. Many school-based recipients
noted the value of the portable in easing the administrative task of managing individual educational plans (IEPs) and, less commonly, involving pupils in IEP management:

*When we get the IEP/assessment software I can see that I will use it all the time. At the moment I am still wading through piles of paper and repeating myself on a number of IEPs.*

*The child can add things (to IEP) directly.*

Many school-based recipients referred to the value of the portable in enabling special educational needs related tasks to be completed at home, with concomitant gains in quality of the work.

Some school-based recipients noted the issues of confidentiality:

*A separate, confidential, portable for special educational needs management would be appreciated.*

*Because I am the only person to use this (portable) computer, confidentiality is assured. Work on my home computer could be accessed by my family or their friends. I word process reports for special educational needs and child protection (case conferences) so confidentiality is very important. For this reason I would not allow pupils at school to use my laptop. Separate machines need to be provided for pupils in school.*

Presumably these difficulties could have been overcome by saving such information on floppy disks rather than the hard disk or by password-protecting files. If teachers were unaware of this then it again highlights the need for basic training.

There were a wide range of reported indirect benefits in having a portable. For example, many written-in comments referred to the use of the portable by learning support assistants. It is likely that such experiences provided an important basis for raising the ICT skills of those workers and so provided an important but probably unanticipated benefit of this grant.

*My teaching assistants have found the portable very useful during in-class support.*
The provision of the laptop has greatly enhanced the work of the Department. The support assistants have access now which was difficult to provide because lack of hardware (previously). Quality and quantity of teaching materials has improved. Speed of producing spreadsheets for standardised test scores greatly increased enabling earlier distribution of information to staff.

Similarly, wider computer use by parents in school or at home may also be a way of raising their ICT skills:

*I have used it in the Family Numeracy Project, introducing maths/IT to parents and pupils.*

*Education otherwise than at school requires a commitment to IT. Portable computers enable this to take place in ALL pupils’ homes.*

There were also indirect benefits for pupils other than the pupils with SEN, for whom the scheme is likely to have had more direct impact:

*It frees the desktop for other pupils.*

Recipient support service staff used finance/accounts programs relatively more than did school-based recipients. Support service staff were more likely than were school-based staff to make use of IT for in-service training, monitoring and reviewing IEPs, and obtaining resources for special educational needs. These findings have face validity as they reflect the acknowledged importance of these roles for many support service staff.

Support service recipients, and to a lesser extent school-based recipients, made more use of the Internet and especially the special educational needs coordinators’ (SENCO) Forum discussion group than did non-recipients. The SENCO Forum is a specialist, but open, web-based discussion group aimed primarily at special needs coordinators. A surprisingly high proportion of recipients, particularly those in schools, had not tried to access the Forum, or claimed it was not available. As the large majority of the portables included internet access the latter seems unlikely, and this may again reflect machines being supplied to recipients who did not have the training or knowledge to use them. However about a third of school-based recipients had not tried to use the Forum or to access information about special educational needs through the Internet. Despite this, the Grant 36 scheme may have been particularly important in increasing Internet access via subscriptions to internet service providers at home, rather than computer use *per se*. Support service staff were reportedly making more use of the SENCO Forum than were school based staff.

Use of the SENCO Forum was lower than we had anticipated, given what we had felt to be widespread publicity about the Forum. It may be that this information is not getting outside the ICT and/or special educational needs communities. It would be useful to publicise the SENCO Forum, if this has not been done recently, through short articles in generalist teacher newspapers and magazines, and the National Grid for Learning site.

Many support service workers were particularly alert to the value of a portable in their (sometimes apparently rather bleak) situations:

*I am often working in very small rooms or corridors. A portable would be useful.*
The immediacy of access to a computer was also valued by support staff:

*It’s available instantly in all schools for use in working with the children and for demonstration for staff for INSET purposes.*

**Responses analysed by access to IT**

Respondents to questionnaire B could be grouped into four categories in terms of access to IT: those who had access to a portable or equivalent (e.g., two desktops) and so could use IT both at home and at work, referred to here as “dual users”, those who had “access to IT” via at least one machine either at home only or at work only, and those who had no access. Thus non-recipients as well as recipients of portables could have the same degree of access to ICT, via private ownership of machines at home or previous education-system purchases. A majority of the sample \((845 = 71\%)\) were “dual users”; a further 124 had access only at work, 99 only at home giving 90% who had some “access to IT”; only 118 had access neither at work nor at home. Those with access to IT at home used IT, significantly more than those without home access, for liaison with parents, with LEA support services, and with statutory services (here those with access at either work or home also made higher usage). Thus most of these, primarily bureaucratic, duties are carried out at home.

**Discussion**

The DfEE’s scheme was welcomed by LEA as well as school and, particularly, support service staff. The focus on special educational needs specifically was seen as providing a very positive message about the importance of work with these pupils. Similar subsequent schemes (such as that targeting headteachers in primary and special schools, Spring 2000) suggest that the good response to the scheme reported here encouraged parallel subsequent projects. The more recent “portables for headteachers” project aims to help them to reduce time spent on administration as well as allowing those in isolated or rural areas to stay in touch with other teachers, via e-mail and discussion groups.

Three particular issues concerning the scheme explored here warrant fuller discussion: increase in work activity at home, the need for training concerning ICT and SEN, and the position of support services.

**Work at home**

Teachers’ reported willingness to spend considerable time at home in using the portable on work-related tasks was striking. The details given by respondents to questionnaire B about its use in that context suggested that this was not mere posturing for the benefit of the questionnaire but reflected a genuine and widespread commitment to improving education for pupils with special educational needs. The “conscientiousness” of primary teachers described by Campbell and Neill (1994) seems intact five years later.

There was great enthusiasm for use of portable computers (as noted in BECTa, 1998). It had led to teachers doing considerable amounts (reportedly) of independent training, development and work-related activities in their own time at home. This may be linked
with the relative isolation of a special needs coordinator in a primary school and hence the particular importance of linking with coordinators in other schools. Email provides a ready vehicle for this and the portability of the laptop would facilitate this happening out of school. There is a case for special educational needs coordinators having time, eg. half day a week, not necessarily school-based, using the portable/home computer to complete school-linked tasks.

**Training**
The need for adequate training in the use of the portable was a recurrent issue across LEA, school and support service respondents. Amount and level of training appeared to have varied greatly across LEAs. Where training had been relatively substantial there was evidence of its impact on teachers’ reported use of the portable. The association between LEAs’ reported time spent on administering the scheme (including training) and use of the portables suggests that LEA level input was important in helping to ensure that effective use was made of the machines.

ICT initiatives still require substantial training for teachers and other personnel. It would be helpful to explicitly earmark funding for this alongside the provision of hardware and software. A notable change since this project has been the development of training in ICT through the New Opportunities Fund. One third of teachers have signed up for training under this fund (Johnston, 2000).

Portables seemed, as far as school-based users were concerned, to be promising more than was delivered. This is likely to be, at least in part, a reflection of training deficiencies and that portables may require more initiative from the user than does a school desktop which is already set up for use. The smaller size of portables also tends to mean greater fragility. A systematic review of what the portable may/may not offer re special educational needs, with associated thorough training, would be useful and deter disenchantment. The plurality of ICT-linked training in some LEAs suggests a need to audit the scope, focus and efficacy of that training.

A spin-off from the use of portables in the special educational needs context was the extension of computer based activities to support staff, particularly learning support assistants. This can be seen as part of developing lifelong learning across the community. This aspect of portables could be made an explicit target for further funding, training and development. This would be consistent with the government’s increasing concern with lifelong learning and promotion of formal training beyond school leaving age.

**Support service issues**
Support service staff found, given their working situation, that a portable was particularly valuable. It would be useful to audit the provision of portables in support services with a view to increasing provision there. The tendency, found here, to provide a lower specification of software/hardware, less training and less technical back-up to support service workers needs review. As peripatetic ambassadors for, and trainers in, ICT
and special educational needs they warrant facilities which are at least comparable with those for school-based based staff. The position of support service staff also warrants more attention as their apparently comparatively disadvantageous position has implications for wider changes concerning centralised LEA, as opposed to school-based resources. This is likely to be particularly important in relation to low incidence special educational needs about which individual schools (and their special educational needs coordinators) may have little specialist knowledge.

Overall the distribution of portables under Standards Grant 36 was well-regarded by LEA personnel, particularly in the smaller authorities, with reservations relating mainly to the lack of time to administer the scheme. The guidance from the DfEE was regarded as helpful with inherent (valued) flexibility. Amount and level of training appeared to have varied greatly across LEAs but where training had been relatively substantial there was evidence of its impact on teachers’ reported use of the portables. The scheme was also welcomed by school and, particularly, support service staff. It has provided a useful model for the distribution of additional resources from central funding, aimed at increasing ICT expertise and provision with a clearly defined target group.

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References