



Education Departments' Superhighways Initiative

Group B: Vocationally-Focused Projects

Final Report

**Computer Based Learning Unit School of Education
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Evaluation Methodology and Procedures

1. The evaluation procedures for the projects in Group B necessarily varied according to the context of individual projects, however the following general methodology was employed for all projects.
2. All educational institutions involved in the ten projects were visited by members of the evaluation team, though where a large number of institutions was involved (e.g. London Colleges Multimedia Initiative) a large representative sample was visited.
3. Data was obtained through the use of observation of teaching and learning, through semi-structured interviews with participants at all levels, and through the use of questionnaires using fixed and open-ended response items. Emphasis was placed on eliciting and representing the views of a range of those involved in each project, from learners to teachers and managers.
4. In addition, the evaluation teams analysed project documentation, students' work and minutes of management meetings and, where possible, a member of the team attended project management and steering group meetings.
5. Regular evaluation team meetings were held to ensure a commonality of approach and to inform and refine the methodology adopted and the evaluation foci as findings emerged.

9. THE LINK CENTRE AT QUEENS' SCHOOL, BUSHEY, HERTFORDSHIRE

Project context and description

- 9.1 Queens' School is an 11-18 Grant Maintained (GM) Mixed Comprehensive School of approximately 1,300 pupils and 96 staff (some of whom are part-time), situated on the outskirts of Bushey on two sites separated by the B462 Aldenham Road.
- 9.2 The Link Centre, which is the focus of this evaluation report, is housed in a room on the ground floor of a separate building close to the main school complex on the North side of the Aldenham Road and has been in full operation since September 1994. It was set up in February 1994 after a meeting between the Chief Executive of CRT (Link Training is the training arm of CRT) and the then headteacher of the school.
- 9.3 The purpose of the Link Centre is to provide a separately-owned and managed multimedia IT resource for the school, with access to a comprehensive CD-ROM library, the hardware and software being available to the school during school hours. The teaching and learning emphasis is (at the time of the evaluation) solely on the curriculum use of IT in terms of the materials supplied by Link Training, that is not on the use of the Internet, and, as such, this project cannot yet be regarded as a superhighways project, but it has been included here because it offers a useful model for sponsors and schools working together and Internet use is now growing.
- 9.4 The computing facilities (including hardware and software), furniture and fittings were provided free of charge by Link Training. The facilities are available during the school day for use by the school, but after 4 p.m. at weekends and in holidays they are used solely for Link Training activities.
- 9.5 There are currently three other Link Centres in the UK; at schools in Ossett and Featherstone in West Yorkshire and Treforest in South Wales, and another 13 centres are due to open in the near future. The Link Centre at Queens' School was the first to be set up, and the others are modelled in terms of their operating procedures and organisation on the centre at Queens' School.
- 9.6 It is an accepted policy of Link Training that software held at any site is also available to other sites if requested.

Technical details and teaching facilities

- 9.7 The hardware held at the Link Centre comprises 17 Pentium multimedia IBM PCs (one PC is used as a server for the Novell network). All are equipped with CD drives and personal earphones, and are connected to a local area network (LAN), with full Internet connectivity via ISDN lines using the Planet Online Internet service. It is important to note that the server is used for the non-CD-ROM software, for example word processing, databases, spreadsheets and drawing packages which are used. It is not used for the delivery of the CD-ROM software. Technical back-up is arranged independently from that used by the school. The PCs are arranged around three sides of the room (monitors facing inwards), and in the centre part of the room there is a set of tables arranged in a rectangular formation. There is ample room for the teacher to move around the classroom and for an interested observer to see each monitor screen and thus be aware of each pupil's activities. This model is based upon the premise that 16 computers allow

approximately half the class to work at the computers with the remaining pupils working with other resources at the centre tables. Alternatively, a whole class could work in pairs at the computers. There are also five Hewlett Packard (HP) deskjet printers and one HP colour printer in the room. As yet there are no e-mail or video-conferencing facilities.

- 9.8 There is a CD-ROM software library of over 100 titles available to the Link Centres, with each centre having multiple copies of titles which are most frequently used at that particular centre. In addition, each centre carries a library of CD-ROMs. The software titles held by each centre are published on a catalogue list from time to time, and centres can request titles from other centres if they are not due to be used. This procedure ensures that the centres do not overstock with CD-ROMs and that the expenditure on software is maintained at a prudent level.

Supervision

- 9.9 The Link Centre has a full-time Centre Manager appointed in November 1994 and employed by Link Training. The current Centre Manager is the holder of a Certificate of Education, an MA degree in Educational Management and has teaching experience in Further Education. There is also a part-time Learning Support Officer who comes in from 11.00 a.m.-2.00 p.m. and some evenings. This arrangement gives the Centre Manager a measure of flexibility in her hours, and also enables her to talk with school staff and to attend meetings. In addition, other full-time help is provided specifically for the NVQ courses by an accredited NVQ trainer.
- 9.10 The Centre Manager's responsibility is to ensure the smooth running of the Centre, and it is important to note that she takes no part in the pedagogical usage of the Link facilities during a lesson period but is always on hand to deal with any technical problems which may arise which the class teacher is unable to rectify. The Centre Manager also runs a lunch-time IT club for the pupils.

Project aims and objectives

- 9.11 In creating the Link Centre at Queens' School, Link Training specified the following eleven objectives which the centre was expected to achieve:
- to develop a commercially sustainable formula for the provision, support and management of new technology in secondary schools
 - to provide regular, booked access to the Centre for staff and pupils at the school
 - to identify and develop multimedia interactive applications across all the subject areas of the National Curriculum
 - to induct all school teaching staff into the use of the Centre and the technology employed
 - to sift the available multimedia content and support teaching staff in identifying suitable multimedia resources in their own subject area
 - to assist in overcoming the technology barriers and creating the climate to enable teaching staff to incorporate multimedia resources into their lesson plans
 - to support teaching staff in the delivery of full classroom lessons using multimedia resources and new technology

- to support the effective delivery of the National Curriculum, GCSEs, GNVQs and NVQs using multimedia resources and new technologies in the school environment
 - to deliver cost-effective, high-quality IT skills training to the local community and businesses
 - to understand and manage pragmatically all the key interest groups associated with the school, including teachers, governors, pupils, parents and where appropriate the LEA and the TEC
 - to develop the procedures and support infrastructure to ensure a fully managed, seamless technology package for the school customer.
- 9.12 Link Training is careful to indicate that it is aware that, for the new technology to have an impact on education and training, it must be ‘owned’ by the teaching profession, and be viewed as a tool rather than a threat. The multimedia learning centre should facilitate the usage of the technology and also provide a level of technical and professional support for teachers and so assist them to embed the new technologies into their pedagogical methodologies.

Sponsorship and contractual arrangements

- 9.13 It is not the purpose of this evaluation report to describe in specific detail the contractual arrangements which have been made with Queens’ School. However, there are important implications concerning the arrangements which are relevant and these will now be presented.
- 9.14 When Link Training agrees to set up a centre at a school, a contractual agreement is drawn up. This contract defines the terms and conditions which are to regulate the operation of the Link Multimedia Centre over a period of three years, after which time a new agreement is made. The agreement is subject to an annual review and may be terminated with a three months’ period of notice.
- 9.15 The school is responsible for providing a suitable room free of charge (that is rent, cleaning, heating and lighting) for the exclusive use of Link Training and, in addition, the security of these premises is the responsibility of the school. The school also has to provide parking facilities for Link Centre staff during school hours and for Link customers outside school hours as well as access to adult toilet facilities during the hours when the centre is open.
- 9.16 The Link Centre is operated by Link employees who are selected *by agreement* with the school.
- 9.17 The contractual arrangements differentiate between usage by pupils in Years 7 to 10, and those in Years 11 to 13. Years 7 to 10 pupils must be supervised and use the centre on a timetabled basis. However, Years 11 to 13 pupils are allowed to use the facilities unsupervised by school staff and, if they wish, to follow a training course, such as part of an NVQ qualification. In these latter circumstances, Link Training will make appropriate charges for the course and fees will also be levied if the centre is used for staff INSET courses.
- 9.18 Link Training also uses the centre as a base for the selling of products such as books, hardware and software, and the terms of the agreement state that the school should not unreasonably withhold its consent to the centre stocking or offering such products.

- 9.19 The promotional activities which are allowed include the school participating in Link Training public relations exercises (Link Training also agree to participate in those arranged by the school), use of the school's channels of communication for free 'mail shots', that is pupil post at least three times per term and, whilst Link will not have access to any school database, they will be allowed access to Year 11 leavers and pupils in Years 12 and 13. The school must also agree to the Link Centre facilities being networked to local businesses and homes. The promotional activities are not limited to Link, since the terms of the agreement indicate that other organisations may wish to sponsor the centre and, as such, they will also be allowed to attach their name or logo to the materials used or emanating from the centre.

Finance and the establishment of future Link Centres

- 9.20 The four existing Link Centres are regarded as pioneer centres and have had a unique relationship with Link Training. Each of the schools involved provides a Link Centre room with nearby toilet facilities; parking; access when the main school is closed; heating; lighting; caretaking and 'reasonable' security. Link Training provides the decoration, furniture, fittings, hardware, software, networking and Centre staff, which comprises (in the case of the four existing centres) a Centre Manager and part-time assistant(s). The four schools mentioned above have made *no capital contribution to the set-up costs*, and this has meant that currently Link Training is bearing a significant cost in relation to funding these pilot centres.
- 9.21 In future, any school wishing to enter into a partnership with Link Training will be expected to share a common vision by contributing possibly £15,000-£20,000 per year, to support the Link Centre. (N.B. This costing is purely provisional and may well vary depending upon the circumstances of each particular school.) Additionally, the school would also have to pay around £6 per hour per class for Internet access. Link Training has indicated that they will need contracts which will deliver in the region of £50,000-£55,000 a year from each centre (including the school contribution) for that centre to be a suitably profitable venture. Other funding could be generated, say, by a local TEC buying into services provided by Link Training. In Featherstone, the Linpac organisation is currently having some of its employees trained at the school's Link Centre. Link is also exploring the involvement of 'stakeholders' who might support a centre through funding and training, for example local TECs and cable companies.
- 9.22 Extensive press publicity has meant that over the last year between 120 and 130 schools have approached Link Training with a view to becoming partnership schools. From the viewpoint of Link Training, potential partnership schools should have an improving record of achievement together with strong business and vocational links. This latter point is particularly important since Link Training will need to develop income-generating resources through IT training, marketing and NVQ delivery. The 'quality' and vision of the headteacher is seen as particularly important in terms of the ability to see the potential of the Link Centre for the enhancement of teaching and learning across the curriculum, that is IT needs to be part of the normal activity of the school. The headteacher may also have long-term strategic views which are shared by Link Training, such as that the teacher's role is changing and employing expensive IT co-ordinators and other teachers to support colleagues in IT is uneconomic; that money could perhaps be better spent on facilitators, that is people with 'centre manager' type roles.

Project evaluation

The Link Centre organisation and operation

- 9.23 In the case of all existing centre managers, the posts were initially advertised in the regional press. The school was involved in short-listing and the headteacher was involved in interviewing but, for the posts of part-time support staff, schools were not involved with the appointments. These were conducted solely by Link Training personnel, although the School was invited to take part.
- 9.24 There is no requirement for centre managers to have teaching qualifications or indeed teaching experience. Of the current centre managers, two have had experience in further education and one in a primary school; the other manager is a former librarian. Link Training believes that it is more important that potential centre managers possess entrepreneurial, communication, mentoring and interpersonal skills, and be able to handle a potentially difficult diplomatic role in promoting and maintaining relations with school staff. They should have financial expertise so that they can cope with a budget and should also be computer literate.
- 9.25 The Centre Manager has duties within the centre during the school day and evening. During school time, the manager's chief responsibility is to ensure the smooth running of the centre whilst it is being used by the school. This involves maintaining a booking schedule for the centre, assisting teachers with any difficulties which may occur during their usage of the room, liaising with staff at the school, for example ordering any software which has been requested, demonstrating software to staff, attending meetings with staff or the Head of IT.
- 9.26 The Centre Manager also has to promote the training locally, partly by advertisement through the school's pupil post, etc. Promotional material is developed centrally and is not the sole responsibility of the Centre Manager. It is important to note that all communication via the school post is vetted and agreed with the school.

Appraisal and accountability of the Link Centre Manager

- 9.27 All centre managers are initially on three months' probation, and then subject to quarterly reviews. Targets are set by Link Training for all subject areas with the expectation that all pupils use the centre in the first 12 months of its inception.
- 9.28 It is important that potential problems should be picked up early and that the Centre Manager reports difficulties before they become a problem. To ensure regular monitoring of each centre, the Managing Director for Link Training meets each Centre Manager every six weeks and also communicates by phone several times a week and, in addition, meets with the headteachers of the schools (without the Centre Manager) on a six-weekly to three-monthly basis.
- 9.29 All centre managers have common approaches/methods which are detailed in the procedures manual. For example, to prevent difficulties occurring, they are instructed:
- not to tell teachers how to do their job
 - how to present information at staff meetings
 - how to use departmental meetings to train staff
 - as to possible approaches to use with unwilling staff, departments, etc.

- about the sharing of curriculum material between schools.

Links with other centres

- 9.30 By March 1997, there were four other Link Centres in operation. Each centre is organised in a similar way to the centre at Queens' School.
- 9.31 Each centre maintains a comprehensive CD-ROM library, often with multiple copies of frequently-used software. The software titles which are held by each centre are published on a catalogue list from time to time, and centres can request titles from other centres if they are not due to be used. This procedure ensures that the centres do not overstock with CD-ROMs and that the expenditure on software is maintained at a prudent level.

Sponsorship issues

- 9.32 In 1988, the National Consumer Council first drew up guidelines to encourage standards in sponsored educational materials, and in 1996 produced a pamphlet entitled *Sponsorship in Schools* in an attempt to provide guidelines of good practice which should be followed by schools wishing to take advantage of sponsorship deals. The guidelines are detailed under eight headings: value and relevancy; balance and objectivity; consultation and testing; sales and promotional messages; sponsored gifts, awards and voucher schemes; unsolicited marketing activity; avoiding stereotypes; and description and labelling.
- 9.33 With the Centre being sponsored by Link Training, it was natural that the evaluation should be concerned with the effects of this sponsorship at the school and with comparing the sponsorship activities of Link Training with the guidelines in the National Consumer Council pamphlet. Of the eight identified topics, four appear to be relevant to the Link Centre operation, namely, those concerned with educational value and curriculum relevancy; sales and promotional messages; marketing activities and descriptions and labelling.

Educational value and curriculum relevancy

- 9.34 The resources provided by Link are clearly of considerable value to the school, and, since the school is involved in the selection of materials, the curriculum relevance is essentially the responsibility of the school staff and not Link.

Sales and promotional messages

- 9.35 Floppy disks are currently sold at the Link Centre and it is intended that in the future sales will also include CD-ROMs.

Marketing activities and descriptions and labelling

- 9.36 The Link Centre is advertised with directional signs on the North part of the school campus, but this does not seem obtrusive and appears necessary for the guidance of visitors.
- 9.37 Link Training does use the pupil post as a method of advertising its courses to parents and, indeed, the agreement which is signed by the school allows for at least three free mail shots per term and, additionally, the company is allowed access to the Year 11 leavers and also to pupils in Years 12 and 13.
- 9.38 All promotional activity is monitored by the school, and any letters to parents have to be approved by the headteacher. It would appear, then, that the balance between Link Training's promotional and sponsored activities and the advantages the organisation brings to the school is maintained, but this does

require constant monitoring. The procedures for this are in place and under the control of the school. It is also interesting to note that, from the questionnaire responses, almost 70% of staff respondents felt that Link Training had not abused their position in the school and that there was no undue emphasis on promoting the brand name and advertising.

9.39 The variety and number of questionnaire responses to Link Training's promotional activities indicated staff awareness and concern. The majority of staff were positive about the benefits which they felt had occurred, in terms of the additional resources brought to the school and the publicity Link Training had generated which had raised the profile of the school both locally and nationally. Several staff mentioned their disquiet concerning the advertising which was done by Link Training, and that there should be no exploitation of the pupils, or interference with or dictation of teaching practices. It was stressed that sponsorship should be only with what were termed as 'ethical' companies. The roles and relationships should be clearly defined and constantly monitored and good communications established between the school and any commercial organisation which was involved in the sponsorship.

9.40 One member of staff commented:

“For most staff, Link has provided good opportunities for us, for the pupils, for the parents and for the local community to use the centre, and, as such, Link Training is an example of how a commercial sponsor can work harmoniously with a school.”

9.41 The sponsorship issues raised in this particular evaluation are probably unique within the EDSI evaluation programme since, not only has the sponsor provided equipment and staffing, but there are employees of the sponsor actively involved in the school and, whilst these employees are not directly involved in the teaching activities, and indeed do not have any pedagogical role during a lesson, they are present in the classroom and are, over lunch-times, responsible for the supervision of the pupils who attend the lunch-time IT club. Thus, with Link Centres there is the situation where the school (that is the teachers and pupils) are using facilities which are provided by and under the control of the sponsor at all times. To ensure the success of such a venture, it is important that a harmonious relationship exists between the sponsor and the school, and in particular between the Head of IT and the Centre Manager, as well as between the Centre Manager and the other staff at the school. This calls for particular strong and sensitive interpersonal skills on both sides if such centres are to work for the benefit of both the school and Link Training.

Models of usage of the Link Centre (January – May 1996)

9.42 The average weekly booking of lesson time in the centre during this period was 82.9% of maximum. Some weeks it was as much as 96%, but closures towards the end of term accounted for the poorest week when bookings fell to 56.5%.

9.43 Table 1 indicates that the majority of usage of the Centre was by pupils at Key Stages 3 and 4. This was also confirmed by the questionnaire responses which showed that over 50% of the staff who used the Centre used it with pupils in KS3 compared with 21% who used it with pupils in the Year 10 and Year 11 classes. The table also shows the booking of the centre by some subjects for use by a whole year group e.g. D&T (Design and Technology), English and RS (Religious Studies). Once substantial block bookings take place, the opportunity for use by other subjects is affected considerably. The

History department, for example, has specifically included the use of the CD-ROM Global Conflict into their schemes of work and wishes to provide comparable teaching and learning experiences to all pupils in a particular year.

- 9.44 Departmental usage of the Link Centre is inevitably spread unevenly across the school, with English, Modern Foreign Languages, Religious Studies, Careers, Music, Art, and Design and Technology using the centre the most, and Science, Mathematics, Business Studies and Physical Education the least, with staff from several departments never using the Link Centre at all. From the questionnaire analysis, it appeared that the two most frequently-quoted reasons for not using the centre were the lack of appropriate software and problems over booking the centre at the time required.

Table 1. Numbers of double lessons booked by staff: January–May 1996

Subject	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13
Art	1	7	9				
Business Studies				1		1	
Careers	10			2		1	
D & T		35					
English		5	21		2		
Geography	1		1				
History			12	3	1		
IT							
Maths							
Mod. Languages	8	7	9	6	1		
Music	11	1					1
PSE					6		
PE					2		
RS	12	24		2			
Science		1	1		1		

- 9.45 Class groups are under the control of their own class teacher, but the Centre Manager is always available to help with technical matters. However, she is not involved in any way with teaching, supervision, discipline or assisting with pedagogical issues. The presence of the Link Centre Manager at the lessons was not seen by the staff as in any way inhibiting their teaching, indeed the questionnaire survey showed that the vast majority of staff respondents (91%) felt that her presence was reassuring.
- 9.46 It is important to note that classes continue to use the school's own computing facilities, and this usage had not been reduced with the advent of the Link Centre. With 16 terminals available in the Link Centre, teaching styles are restricted to small-group working, pupils working in pairs and pupils working individually, with the remainder of the class working at the centre tables in the room. The English Department was the only one which adopted the group approach, the other departments appeared to be evenly split between

individual working and paired working. In the comments which accompanied a questionnaire item on this topic, several staff wrote that they would prefer individual working but, because of the limitations imposed by the quantity of hardware, they had adopted the paired approach.

- 9.47 Usage appears to be almost entirely by pupil access to CD-ROMs employed as databases or sources of information, with the pupils searching for information just as they would with an encyclopaedia and then summarising/copying information into their notebooks. It appeared that very few pupils used the copy/paste option to add material directly into a file for word-processing or on to a clipboard for later processing, and thus the level of IT skills developed by the pupils through such activities is quite limited. However, the Art and Design department does use the Corel Draw software and the English department has word-processing as a particular curriculum topic.
- 9.48 The facilities are also available at lunch-times for the pupils, who, under supervision by the Centre Manager, work on their own interests and projects. Pupils have to sign in to register their attendance and to indicate the software title they intend to use. They also have to sign the 'log' beside the computer they use. This procedure enables the use of each computer to be monitored. Pupils are not allowed to bring their own CD-ROMs or any other software into the room and virus checking is performed regularly on all the computers.
- 9.49 Currently the facilities are also used by the local community for 'self-managed learning' by what is termed the Link IT FITness Club on four evenings a week between 4 p.m. and 9 p.m. The Centre is also open on Saturday mornings and during the school holidays. Details of these activities are given in a later section of this report (see paragraphs 10.75-10.86).

Curriculum IT usage of the Link Centre

- 9.50 To some extent, the material contained in this section also provides a profile of the usage of IT across the school; however it must not be taken in this context without reservations, since the evaluation was concerned with the use of the Link Centre and, although the use of the Link Centre impinged directly on the IT provision of the school, this evaluation provides only part of the IT scenario for the school.
- 9.51 Comment has been made earlier on the uneven distribution of the use of IT by the various departments in the school. To a measurable extent, this unevenness will affect the delivery of the cross-curricular IT policy at the school, a point which is emphasised in the following subsections of this report.
- 9.52 The material in Table 2 (below) is *indicative* of the use of the Link Centre. Other subject areas also use the Centre (see Table 1), and the subject areas listed also use other IT facilities in the school, for example in Modern Languages, Year 12 and Year 13 pupils use the *Le Monde* CD-ROM and access the Internet in the school library. At Key Stage 3, most pupils study two languages and there is an estimated 80% of pupils using the Link Centre in Year 7. In Years 8 and 9, all pupils attend the Link Centre, using the CD-ROMs appropriate for the two languages which they study.

9.53

Table 2. Some indicative examples of curriculum usage of the Link Centre

Subject	Year Groups	Examples of CD-ROMs and Software
Art	8,9,10,11,12,13	Corel Draw, ENCARTA, Microsoft Gallery
Careers	9,10,11	MicroDOORS, KUDOS, CID, ECCTIS
Design & Technology	8,12	Electronics Workbench, Autosketch
Geography	9,12,13	Environment-Land and Air, Environment-Water, ENCARTA
History	9,12,13	Global Conflict, Changing Times
Modern Languages	7,8,9	Le Monde
Music	7,8,9	Musical Instruments
Personal and Social Education	10	Aspects of Religion
Physical Education	10,11	Human Anatomy, Body Works

9.54 The use of the CD-ROMs in the Link Centre supports some of the English department's priorities which were originally developed through use of the library resources and the existing IT facilities in school. The use of the Link Centre fits into the overall approach of using IT by the department, which is well-satisfied with the additional resources the Link Centre has brought to the school.

9.55 In Music, the National Curriculum requires a study of ethnic, popular and classical music and, by use of the CD-ROMs in the Link Centre, pupils can not only see the instruments but also appreciate their *timbre*.

9.56 In Science, there is no formal requirement that the Link Centre is used for Science classes; any IT usage is dependent upon the requirements of the individual members of the department. However, it is clear that many Year 11 pupils have used the Centre to help with their research projects, and this was confirmed by observation of the activities of some members of the Computer Club at lunch-time.

- 9.57 During the 1996 Summer Term, there were 28 pupils in the school who had statements of Special Educational Needs (SEN). It was felt that there are particular benefits which may ensue from using CD-ROMs with some of these pupils, namely those pupils with special needs who have problems with an auditory sequential memory deficit. Working in the Link Centre has had a positive effect in motivating pupils of this type, particularly those who have behavioural problems.

The Link Centre/School Library IT resource

- 9.58 The Library is situated in the newer South site of the campus. It comprises a large classroom attractively set out and packed with books. A section of the room contains five multimedia computers for use by pupils. A second smaller classroom is also used for quiet class reading by the English department and for pupils' individual work.
- 9.59 The Library appears well equipped with both traditional and IT-related learning materials; there is a modem connection to Hertfordshire County Council Library HQ for enquiry purposes and also to the British Telecom (BT) Internet site Campus World. This latter connectivity suffers from slow response times which, combined with the repeated use of passwords, makes the use of the site far from ideal. The Library has a number of CD-ROM-based learning materials, including single copies of all of the CD-ROMs in the Link Centre, together with some others (for example Medieval Realms) but they are not class sets as in the Link Centre and, as such, are complementary to the provision in the Link Centre.
- 9.60 The emphasis which governs the activities undertaken in the library is to enhance the teaching and learning in the school. For example, for careers work, pupils in Years 9 and 11 use the CID and ECCTIS databases and there is a Year 7 'information skills' program for pupils to research information about countries which is run by the librarian.
- 9.61 There are three ways in which the Library supports the work of the Link Centre:
- (i) Whole-class work in the Link Centre, using CD-ROMs and books, is supported by the Library offering a follow-up or individual work facility using books and individual copies of the CD-ROMs.
 - (ii) Half the students in a class work in the Link Centre and half work in the library, and later the pupils exchange places. This arrangement operates when pupils are investigating festivals for RS.
 - (iii) All pupils in a class work in the library and work in the Link Centre is supplementary - the opposite of the example (i).
- 9.62 Initially, it was felt that the coming of the Link Centre would result in a diminished use of the library. This has not been the case. There has been increased use of the library because of the activities of the Link Centre and the general stimulus to resource-based enquiry going on in school. Also, some subjects, such as History, use the CD-ROMs and other resources exclusively in the library for projects, an example of which might be 'Romans and Medieval Life' (the Medieval Realms CD-ROM is not available in the Link Centre).
- 9.63 The librarian was already using CD-ROMs in the library before the Link Centre was established. She was involved in the discussions concerned with setting up the centre and some of her practices have been adopted in the Link

'model', for example, the system of children signing to borrow CD-ROMs was already established in the library. New centre managers were trained at Queens' by the previous Link Centre Manager and there was considerable reference in this training programme to the established good practices which governed the use of the school library. Thus, a well-developed teaching strategy of carefully-structured pupil investigation and enquiries was established in the school before the Link Centre was established. Pupils and teachers used books provided by the library and the single copies of CD-ROMs which were available. Pupils were also encouraged to use the library at lunch-times and after school to do homework and research. This practice has been extended as a result of the Link facilities.

- 9.64 The function of the library is to complement the Link Centre and to serve the teaching and learning needs of pupils and teachers in an integrated manner. The library has copies of all the CD-ROMs available in the Link Centre and is able (at the very least) to provide something of an alternative to the Link Centre on the South side of the school.

Attitudes and opinions concerning the Link Centre, its operation and organisation

- 9.65 This section is essentially a summary of the benefits and concerns expressed by the staff who were interviewed, together with opinions given through the questionnaire responses.
- 9.66 The Link Centre is a pleasant, well-ordered environment in which staff and pupils enjoy working. Staff are very happy to work with the Link Centre Manager who is a supportive and approachable colleague, and who, it is felt, appreciates their needs and concerns. The presence of the Link Centre Manager at the lessons was not seen as inhibiting teaching, indeed the majority of staff (91% of questionnaire respondents) felt that her presence was reassuring and she had a clear view of her role in supporting teachers, both in the classroom and in the acquisition of appropriate software. Staff felt that, through using the Link Centre, their enthusiasm and confidence in using IT in their lessons had improved, and their pupils, in turn, had better attitudes and appeared to be more motivated. In terms of IT usage in the school, the Link Centre has had a clear beneficial effect, with 11 staff indicating that, prior to the Link Centre being opened, they had not used IT in their lessons, and there were 56% of the questionnaire respondents who preferred to use the Link Centre facilities rather than those belonging to the school.
- 9.67 The Link Centre provides up-to-date facilities for whole classes, which makes the organisation of teaching at the Centre much easier than in other computer rooms, and the pupils may work individually, in pairs or in small groups. The disadvantages of the Link Centre were in most ways a result of its effectiveness and popularity, and also the result of the school being on a split site. Staff felt that there was too much competition for bookings; they had to plan too far ahead, which limited the flexibility in their schemes of work. With the centre being located on the North side of the campus, it was much easier for those departments with the majority of their teaching on this site to take advantage of the centre. However, more than 50% of the questionnaire respondents indicated that they felt that there were no disadvantages to the Link Centre.
- 9.68 Whilst many staff felt that the Link Centre was working well, there were several suggestions as to how the facilities could be improved. These are listed below and came from the questionnaire responses of the staff:

- provision of more computers, so that pupils have a better chance at individual work rather than working in pairs or in small groups
 - provision of e-mail facilities
 - freer availability of software
 - linking of the centre network to the other networks in the school
 - provision of more INSET for the staff, particularly aimed at the pedagogical aspects of using computers
 - establishment of a different booking arrangement to provide a fairer method of sharing the facilities between the departments.
- 9.69 The booking arrangements which were in place during the 1996 Summer Term have now been altered and, instead of a 'first-come, first-served' policy, the school now operates what it considers is a fairer system through departmental time allocation which, in turn, allows bookings to take place at relatively short notice.
- 9.70 The Link Centre is considered by the school to be an important adjunct, fast becoming a curriculum necessity. It was seen as a resource through which pupils also gain IT skills.
- 9.71 The staff appeared to be equally divided about supporting the Link Centre if the annual cost were in the region of £15,000-£20,000.
- 9.72 To be an effective resource for a school, it is important that the Link Centre and the activities it generates are seen as part of the overall school IT curriculum plan.
- 9.73 There are radical plans to improve, rationalise and refurbish the existing computer rooms on the North side of the school campus, and to improve and enlarge the library and its computer resources on the South side. It is anticipated that £10,000 each year will be allocated over the next three years for hardware and software. This will update and increase existing computer stock and rationalise accommodation and, consequently, make IT more accessible to all pupils in the school.
- 9.74 The school had a recent OFSTED inspection and, as a result of criticisms, the IT department was planning to move away from the current but possibly flawed cross-curricular model of IT provision, to one in which there are some discrete IT lessons.
- 9.75 The Link Centre was seen as being of great benefit to the school, having a positive effect on teaching and learning. It has contributed to the IT development of the school as it has encouraged teachers, who had not used computers in their classes, to use IT in a 'safe environment'. Using the Link Centre presents teachers with no complex classroom-management issues. Technical support is available at all times, thus eliminating the fear of technical problems undermining the delivery of a carefully-planned lesson. Evaluation of the software has been possible with technical support readily available. Moreover, the software is easily understood by teachers as the CD-ROM is effectively an electronic book. Teachers can, therefore, adapt existing research strategies to lessons in which their pupils find information from the CD-ROM.

The Link IT FITNESS club and other non-curricular activities

- 9.76 In the project overview, it was mentioned that, outside school time, Link Training uses the facilities at the Centre for income generation by providing

courses for the general public and for local industry and commerce. This section now reports on these activities. It is important to realise that this is not part of the EDSI evaluation, which is primarily concerned with the use of the Link Centre by the school, but it has been included so that a full picture of the activities of the Link Centre is presented, and thus helps to provide a comprehensive and detailed account of the work and organisation at Queens' School.

- 9.77 Information for this section was obtained through interviews with the Link Centre Manager and observation of, and discussion with, students attending an evening class.
- 9.78 Two courses are currently offered which lead to external qualifications, namely NVQ IT, and RSA Computer Literacy and Information Technology (CLAIT). The NVQ course, for which funding has been obtained from the local TEC and FEFC, and validation from the LCCI (London Chamber of Commerce and Industry), is taught by a trainer who has recognised NVQ training qualifications.
- 9.79 Two Internet for Business courses have also been organised. These courses were held on Thursday afternoons (1.00 p.m. to 4.00 p.m.) and also on Saturday mornings, at a cost of £47.50 per course.
- 9.80 Apart from these courses, any member of the public may enrol for an IT-related course which, after an initial consultation and skill assessment, is tailored to the needs of the individual. Such tailored courses have proved to be very popular for the development of skills in word-processing, and the use of spreadsheets and databases, for which the common Microsoft software is available. Study for such courses is through independent learning materials which are provided by Link Training. Although the courses are not taught, the Centre Manager is available to provide help and technical assistance when required.
- 9.81 There are currently 73 students enrolled on such courses, and this represents about 85% capacity for the Link Centre facilities.
- 9.82 These individual learning sessions are available on a 'drop in' basis with course fees of £29 per month, This covers the cost of the learning materials, a preliminary skills assessment and use of the equipment.
- 9.83 The FITness club has enrolled members from a whole spectrum of professions and backgrounds, from solicitors to teachers, and has clearly been successful in its operation.
- 9.84 At the time of an EDSI evaluation visit, 11 members of the FITness Club were present and interviews were held with three of them.
- 9.85 One FITness club student was a member of staff from Queens' School, who was taking the NVQ IT course. He was pleased with the facilities provided by the Centre and had used them with his classes at the school.
- 9.86 A second student interviewed was a woman who had two children at the school and who wished to acquire some IT skills. After some deliberation and research, she discovered the prices charged by Link were cheaper than other providers in the area. She particularly liked the friendly, relaxed nature of the Centre; she was able to work at her own pace with what she felt were good learning materials and with professional help available when it was required.
- 9.87 The third interviewee was employed by a local voluntary organisation and was updating her skills on spreadsheets. She particularly liked to be able to 'drop

in' to the Centre, to study in her own time and the organisational aspects of the Centre, and she felt that both she and her colleagues were attaining the skills they sought. Her fees were paid by her employer.

Staff development

9.88 Apart from using the Centre facilities for specific courses, for example the Internet course, the Link Centre has contributed significantly to staff development at Queens' School in several ways.

(i) Teachers, who were once apprehensive about using IT because of their lack of confidence, are now able to use the IT facilities which have been provided with the assurance that there is always technical help available if it is required. This alone has enabled staff, who may have been particularly reluctant to use IT, to have the confidence to try alternative approaches to their lessons and so develop their own understanding both of IT and the ways in which it may be integrated into the curriculum.

(ii) The extra facilities which the Centre has brought to the school have enabled more IT work to be done. This has expanded the IT facilities at Queens' School and helped to develop IT expertise amongst the staff.

(iii) The constant presence of a resident IT expert, in the person of the Centre Manager, has meant that staff have someone whom they can approach to discuss any problems relating to the use of IT, and so take some of the burden away from other staff, such as the Head of IT. This has been particularly successful in terms of the support provided for new members of staff.

(iv) At a departmental level, individual departments have been able to have IT training specific to their needs, often provided by the Centre Manager (for example D&T, English and History) and so raise the awareness and skills of their individual members.

9.89 It could, of course, be argued that (ii) and (iv) above could be achieved without a Link Centre, providing a school had appropriate IT facilities available. However, the presence of the Link Centre has certainly enabled more of such training to take place at Queens' School. The major impact with staff development has undoubtedly been because of the presence of technical support in the classroom, and this has been remarked upon on many occasions during interviews with staff.

Achievements and replicability

9.90 The Link Centre objectives outlined at the beginning of this report have, in the most part, been fully realised, on the evidence of this evaluation, and, as such, they would indicate a considerable achievement by the Centre Manager and her part-time staff. The vast majority of the teaching staff, both those interviewed and those responding to the questionnaire, are fully supportive of the Centre and the resources which have been provided to the school. The Centre has helped considerably to develop the IT expertise of both the staff and the pupils and, through its involvement with the local community and industry and commerce, has helped to raise the standing and profile of the school.

9.91 Whether such achievements can be replicated elsewhere is of course debatable. Clearly, Link Training cannot be so philanthropic as to set up similar centres free of charge in every secondary school. These centres need to be financially viable and, for this, their source of income must be assured from the local community. This does not mean that the model used at Queens'

school is the only possible model which should be attempted but rather that other, possibly co-operative models which involve other training providers or organisations, should be sought.

- 9.92 Whatever model is used to supply the financial base, the operation of the centre in a school depends upon several crucial factors: (i) the interpersonal skills of the Centre Manager, (ii) the relationships between the Centre Manager and the Head of IT at the school, and (iii) the IT climate or ethos in the school in terms of the support and emphasis which is placed on IT by the headteacher and senior management team at the school.
- 9.93 The success of the Link Centre at Queens' School has depended particularly on the efforts of the Centre Manager, who has continually liaised with staff, and developed a strong supportive and advisory role for IT at the school. She is particularly well respected for her knowledge and unobtrusive support in lessons, and for her general willingness to help. Since the Centre Manager must work in close harmony with the Head of IT, it is important that the Centre Manager is accepted as a colleague and not seen as a threat, in terms of being responsible for IT resources which are not directly under the control of the Head of IT. With the Head of IT at Queens' School, this relationship appears to work particularly well. Regular meetings are held with the Centre Manager, and issues are discussed in a cordial and professional way so that the resources provided by the Centre have been carefully integrated into the existing IT resources and IT policies of the school. Without the support of the headteacher and senior management, all this would not be possible; there needs to be a strong commitment to IT within the school, so that teachers feel positively encouraged to use the facilities which are being provided.
- 9.94 The model used at Queens' School is not financially replicable but, given appropriate income generation, perhaps in terms of modest financial support from the school, and training grants, this and other models could be made to work, providing that the personal relationship factors and school IT ethos identified above are present.

Commentary and recommendations

- 9.95 The Link Centre has had a significant impact on the school, and this is clearly shown by the usage by the staff and by the take up of IT by nearly all the departments in the school, with some departments acknowledging that the Link Centre facilities had been the motivating factor in their use of IT. A measure of this usage is the near 90% capacity of use.
- 9.96 The Link Centre is an additional resource which has been easily integrated into the curriculum of most departments in the school. That this has occurred so

9.97 smoothly and extensively is the result, primarily, of three factors:

- the existing facilities which were available in the school library where accepted practices had been established for the use of CD-ROM resources
- the IT policy of the school which stressed the need for usage across the curriculum
- the personal skills and efforts of the Centre Manager to ensure that the Centre responded to the needs of the staff and provided an environment which was both supportive to the staff and conducive to meaningful activities by the pupils.

9.98 The Link Centre is an IT resource on its own but it is also part of the overall

- 9.99 IT capability of the school and, for it to be successful, it has to be integrated into the existing IT policy of the school, with roles and responsibilities clearly identified, and with lines of communication established and monitored in terms of their effectiveness and use. It is easy to see how a centre manager, who is anxious to meet the targets which have been set by his/her employers, could readily cause disquiet amongst those school staff who might be anxious and reluctant to use IT, and particularly with a busy head of IT. Our observations and interviews have indicated that the relationships appear to be quite cordial, and regular meetings are held to discuss policy and practices. Relationships are also good between the Centre Manager and the staff at the school, with regular newsletters and information being sent out, introductory booklets available for new staff, and opportunities made for staff to evaluate software prior to purchase. In addition, the mechanisms which Link Training has in place, in terms of regular visits by the Managing Director for Schools, and weekly communication between the Centre Manager and the Managing Director, ensure that the activities in the Centre are closely monitored and reported.
- 9.100 There appear to be very few problems which were identified by staff during the course of the evaluation. One problem which was repeatedly voiced concerned the booking arrangements for the Centre. However, from the start of the 1996/97 academic year, different arrangements have been in place and early indications would suggest that these arrangements do meet with the general approval of the staff and provide greater flexibility and are a more equitable procedure.
- 9.101 Other problems concerned the availability of software in that, whilst it was acknowledged that software was passed or loaned to other centres when requests had been made, it was felt that perhaps there could be an agreed list of titles that would be held at Queens' School and that this software would always be available unless agreement had been made with the school department for the loan to another centre. It was, of course, important to ensure licensing agreements for multi-site usage were negotiated.
- 9.102 The IT policy of Queens' School is currently based on a cross-curricular model. The extent to which this policy is successful is dependent upon several factors, including a high degree of IT awareness by the staff, an acceptance by each department of its responsibilities, and a careful monitoring and recording of the whole process. Whilst it is not within the remit of this evaluation to review the IT policy at the school, it was clear that, whilst such a cross-curricular policy for the development of skills was commendable, in terms of practice, it may require augmentation through specific IT lessons. The Link Centre forms part of the IT capability of the school and it too has a role in ensuring that the IT policy is maintained, if not strengthened. The very fact that the Link Centre is used so much would indicate that the Centre is contributing to fulfilling the IT policy of the school, and many staff now feel more confident in using IT in their lessons.
- 9.103 The operational guidelines which are employed in the Centre need to be flexible so as to fit in with changes and developments in the use of IT, for example the use of the Internet, otherwise the Centre will not continue to support and enhance the curriculum in the ways it currently enjoys, and the focus of activities will gradually shift to other areas. In terms of developing the pupils' IT skills, the majority of the activities which were undertaken in the Centre, such as using CD-ROMs and copying material into a workbook or task sheet, were quite limited. To some extent this was because of an existing policy of only using CD-ROMs in the Centre, a policy which has now changed. There was little progression into selecting and pasting text or images

into a document which could be later word-processed. There is no criticism of this activity from the standpoint of a particular lesson, since the use of the CD-ROM may have been incidental to the lesson. The criticism is in terms of developing and monitoring the activity as part of the pupil's development in IT, that is the cross-curricular IT policy of the school.

- 9.104 It is important that, prior to a centre being established in a school, a coherent and managed staff-development programme is devised, and a longer-term vision of how IT is to be managed into the future is in place. There needs to be a view of how such a new resource can be integrated into existing IT provision, and an agreed entitlement to IT competency and capability for every student which is both well-monitored and assessed. Subject areas wishing to make use of IT need to know how to integrate it into their curriculum and how best to make use of all the resources in the school, whilst being able to contribute to the pupils' IT entitlement. There needs to be the same rigour in lessons which use IT as is demanded by any lesson using any other resource; IT should be seen to be used where it is fit for purpose and not as a bolt-on exercise. Pupils need to develop generic skills which they can feel confident of using in a range of situations and, importantly, in view of the cross-curricular nature of the IT policy, these skills need to be recorded and the whole process of their acquisition needs to be carefully assessed and monitored.
- 9.105 The Link Centre was provided free of charge to the school and, apart from the heating, lighting, cleaning and security costs (most of which the school would have previously had to pay anyway), there is no charge made to the school. Whilst this arrangement is particularly agreeable to Queens' School, it appears to be a model which can be replicated only if the providing organisation makes money from other activities, or levies an annual charge to the school. At the time that the evaluation was undertaken, it was indicated that the probable annual charge would be in the region of £15,000 to £20,000, with any new centre expected to make about £50,000 from the services which it provided, for example courses and sales. The important question, then, becomes, bluntly, 'Is this an appropriate fee for a school to pay on an annual basis?'. When this question was put to the staff in the questionnaire, it produced an even split of opinion, 37% for, 37% against and 26% undecided. This is not an easy question to answer. At Queens' School, the Centre has had a very significant effect on the IT capabilities of the school. It is used extensively by the school and it has helped to raise the profile of the school, but £20,000 almost means one extra member of staff. It could also mean the total capitation allowance for all the departments in the school, in terms of books, paper and other resources. It is a question which will have to be left unresolved in this report. Much depends on the financial health of the school and the climate of opinion about IT in the school. If staff were aware of the financial cost of a Link Centre and there was not a strong IT environment in the school, coupled with a lukewarm approach to IT by the senior management team, then any money spent in this way would be resented by the staff. It would, thus, appear that the setting up of similar centres might pose problems for Link Training and also for the schools involved unless a strong IT commitment at the school is present.
- 9.106 One particular concern has been the introduction into the school environment of an outside sponsor. This is not unique in educational terms but, since the practice of sponsorship appears to be an accepted phenomenon throughout our society, its effects at Queens' School were part of the evaluation. Link Training advertises (discreetly) within the school and use the pupil post service to distribute information concerning their non-school-time activities. That they do this causes concern amongst a minority of staff, but it was

recognised that the benefits which Link Training has brought to the school have far outweighed any disadvantages which have occurred through its promotional activities. Furthermore, all correspondence which involves the school is vetted by the headteacher and, thus, it would appear that Link Training does not breach any of the guidelines outlined in the Consumer Council's pamphlet *Sponsorship in Schools*.

- 9.107 The importance of the success of the Link IT FITness club to the operation of the Link Centre at Queens' School cannot be over-emphasised, since it is through this activity that the finance to support the school use is generated. Thus, it is in the interests of the school to support and to encourage the commercial aspects of the centre, whilst at the same time being aware of the dangers of sponsorship which have been detailed earlier in this report. The Link Centre needs to provide a suitable range of courses which satisfy the needs of the local community, including commercial organisations, and which, in turn, lead to acceptable accreditation. Since Link Training is not an awarding body, it can do this only by working closely with local TECs and FE institutions. It is interesting to note that these activities have increased over the duration of the evaluation, for example the introduction of Internet for Business courses and an RSA CLAIT course. However, there has been an encroachment by the Internet for Business course into the time when the Centre was supposedly reserved for school usage (that is during the school day). Whilst this has been of a very limited nature, it is important that this does not develop so that commercial requirements begin to take precedence over what is acknowledged as a very useful and much-used IT resource for the school.
- 9.108 At Queens' School, the introduction of the Link Centre has brought significant advantages; the IT resources have been extended, allowing pupils and staff to benefit from the influences and enhancements which IT can bring, both to the individual and to the curriculum. The model used at Queens' School cannot be repeated at every school. Its success depends upon the many factors which have been outlined in this report and which will exist only at certain schools. For an operational model to succeed in the long term, a secure financial base is essential, and this can come only through training fees and contributions from the school, which may be achieved only in schools which are strongly committed to IT.