

UNIVERSITY OF SOUTHAMPTON

**ACCESS TO EDUCATION-INDUSTRY LINKS PROGRAMMES
BY STUDENTS WITH SPECIAL NEEDS:
AN IN-DEPTH POLICY ANALYSIS WITH SPECIAL REFERENCE
TO THE SENSORILY IMPAIRED**

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UNIVERSITY OF SOUTHAMPTON
ABSTRACT
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ACCESS TO EDUCATION-INDUSTRY LINKS PROGRAMMES BY STUDENTS WITH
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WITH SPECIAL REFERENCE TO THE SENSORILY IMPAIRED

by STEVIE MAYHOOK

This original research was undertaken as a direct result of the researcher's organising education-industry links programmes for sixth formers on behalf of a charitable Trust established for the purpose, Understanding Industry, and her background as a qualified Teacher of the Deaf. It sets out to describe and evaluate the process of adapting such programmes for application in the context of schools and colleges for students with impaired hearing or vision.

Having considered various methodological approaches, the models of action-researcher and researcher-practitioner seemed the most appropriate. The research was conducted by assisting specialist centres to run courses and conferences that would foster relationships with locally-based companies and enable their students to have an experience of equal value and interest to that routinely enjoyed by their mainstream peers.

Modification of materials and presentation methods were negotiated and evaluated with the intention of developing models which could be applied in other settings and with students presenting a wider range of special needs. The research took place during a time of major political change and in the context of a serious reappraisal of the philosophy and structure of provision for students with special educational needs and disabilities.

This work is believed to be an important contribution to the development of both industrial awareness on the part of young adults with special needs and disability awareness of employers. Scarcely any literature exists on this subject, yet recent changes in demography, technology, medicine and social attitudes mean it will assume growing importance for both education and industry.

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CHAPTER 1: INTRODUCTION

1.1 Background and Rationale

Since the mid-1970s there has been much debate in political and educational circles as to the appropriateness of modern education in preparing young people for the adult world of work. At different times and in diverse ways, attention has focussed on the school curriculum, post-16 provision, careers education and guidance, work experience, role-shadowing, involvement of industry in the classroom, links with the wider community and the development of new vocational qualifications. Some of these initiatives have been short-lived whilst others have evolved and/or survived.

In the same period, attitudes towards the education of students with special needs have changed and provision has accordingly undergone various modifications. Medical advances throughout the century, and particularly in the post-war period, have meant that the life expectancy of children born with congenital handicaps has risen and previously routinely-fatal childhood and viral infections are more likely to be survived, albeit sometimes with consequential acquired disabilities.

The liberalisation of social attitudes developed in the 1960s and 1970s in both America and Europe towards ethnicity, gender and sexual orientation led to a general raising of awareness and acceptance of principles concerning equal rights of opportunity for all citizens in the areas of health, education and social interaction, although concrete measures to facilitate access and participation have taken longer to be implemented and are by no means universal. Britain followed America's example with a move towards greater educational integration in the early 1980s, causing a corresponding contraction in the number of places in 'special schools' available as many centres closed or amalgamated. Both mainstream and special schools had to consider their levels of physical and academic access and various models were developed.

It is the concern of this work that, despite a theoretical equality of access to and participation in all aspects of the curriculum, the nature of education-industry links programmes may effectively exclude many students with special needs because of their mode of delivery, assumptions of ability or location and setting.

1.2Aims and Objectives

In undertaking this original research, the intentions were to produce a synthesis of existing material and analyse a range of research findings by:

1. identifying some of the special needs presented by students in mainland Britain;
2. identifying and describing some of the major organisations and schemes currently involved in education-industry links programmes;
3. conducting an analysis of current involvement by students with special needs in the programmes run by one of the identified bodies viz *Understanding Industry (UI)*;
4. assessing the relevance and appropriateness of students' participation in these activities to their life experiences and expectations;
5. developing and running modified programmes as pilot studies;
6. evaluate and develop these 'pilots' for future use in other settings.

1.3The IntendedMethodology and Structure

To conduct this research and obtain significant findings it would be necessary to:

1. study published data to identify a range of special needs and use similar sources to identify key providers of education-industry links programmes;
2. analyse the current programmes of one such agency (UI) and the participation in them by students with special needs;
3. negotiate with interested 'special' schools/colleges to develop pilot courses addressing the needs of their client groups;
4. develop a system to sensitively request participating mainstream schools and

colleges to identify any specific special needs of students taking part in traditional courses;

5. develop a sensitive way for students to identify their own perceptions of their needs and describe their experience of links with industry to date;
6. use personal accounts from participants to enable UI to produce and adapt programmes and materials for use with students with a range of special needs and train participating personnel appropriately.

1.4 Early Days

When the proposal for this research was originally drafted, it was expected that the researcher would use personal, existing contacts in mainstream schools to begin gathering data on participating students classified as presenting special needs at the start of the 1997/8 academic year. The entire membership of Understanding Industry - a network of around 80 self-employed Regional Organisers - would then be apprised of the project at their annual conference in February 1998 and their help would be enlisted in gathering data on the participation levels of special needs students in the various geographical regions. Plans would then be drafted to run pilot courses in integrated and special school settings. Two events changed the structure of the anticipated itinerary and the scope of the research.

Firstly, because of internal budget constraints, it was decided that for the first time in several years there would not be an annual conference in 1998, although it was hoped to reinstate the tradition in the following year. As it turned out, there was no annual conference, or any other opportunity to address even large groups of UI personnel, during the whole of the research period.

Secondly, and more significantly, in the summer of 1997, Understanding Industry was given a grant by the newly-formed Lloyds TSB Foundation to develop two pilot courses for students with impaired hearing. If these initial programmes were successful, consideration would be given to the possibility of funding further pilot courses over a two-year period. Being a qualified, practising Teacher of the Deaf and having already outlined the proposed research to the Senior Management of UI, the researcher was asked to co-ordinate this new

project, which led directly to the implementation of point 3 of the methodology and structure described above and in turn reduced the relevance of point 4.

In February 1998, an approach was made by a Sussex-based charitable trust for help in running a course to raise awareness of industry and the world of work for students with visual impairments. Given the researcher's established interest in the field of special needs provision and the Trust's location being within her regional responsibility, it was a natural and simple procedure to integrate the request into this research project. As a consequence, it was agreed that a programme would be negotiated to be incorporated into the Trust's summer school to be held in August 1998.

These initial courses were sufficiently successful to allow for further funding to be confirmed for the project to be extended to three years, giving a total of eight pilot courses for the hearing impaired and four for the visually impaired. It had always been realised that it would be impossible to investigate the full range of special educational needs in this project. It was therefore decided on the basis of available funding and existing expertise to concentrate on students with hearing or visual impairments attending appropriate special schools or colleges offering post-16 education. It was anticipated that many students would present secondary disabilities either in addition to or as a consequence of their sensory impairment: for example, dyslexia, cerebral palsy, autism, emotional or behavioural disorders and the issues these raised in formulating suitable programmes would facilitate point 6 of the aims and objectives.

1.5The Political Context

Many of the changes in special educational provision mentioned above had taken place as a consequence of the 1978 Warnock Report - that is, during the eighteen years of Conservative government which began the year after the Warnock Committee published its recommendations. This period saw a concerted drive towards the integration of children with special needs into mainstream schools and a contraction of the discrete provision offered by 'special' schools.

In the spring of 1997, just as this research was being prepared, the Labour Party came to power pledging that its main priority was to be "education, education, education." There

inevitably followed many changes in all educational sectors and this contributed to the difficulty in finding up to date sources of reference to support or contextualise this research. The Department of Education and Science had become the Department for Education and Employment under the previous administration in 1995, which suited the new government's initiatives in lifelong learning and emphasising the relationship between education and the world of work.

When the research period had concluded and this thesis was being drafted, another election was held, again returning a Labour government. The Department for Education and Employment was swiftly renamed the Department for Education and Skills, now stressing the pre-eminence of the learning process but still suggesting the goal of universal employability. An e-mail enquiry about official policy regarding students with special needs and education-industry links (as defined in this research) elicited the following response from the DfEE's School Business Links Unit:

“...The Government's aim with regard to education business links is to provide all young people, especially those in need, with a wide range of high quality, structured experiences of work throughout their school careers which will help raise standards of achievement, increase motivation and attendance, develop key skills and attitudes and prepare young people more effectively for adult and working life. Need to secure greater involvement of business to achieve this.”

“From April 2001 the Learning and Skills Council (LSC) assumed responsibility, through local LSC's, for ensuring the provision of education business link activity, including KS4 Work Experience and Professional Development Placements (formerly Teacher Placements), in each of the 47 LSC areas. To meet the LSC's responsibility, local and national education business link organisations formed consortia in each of the 47 LSC areas. This will enable them to provide a single face to both schools and businesses to deliver a full range of high quality activities and a single contracting point for the local LSC's.”

“We do not have any national guidance which sets out how schools and business approach this in terms of SEN...”

When the proposals for this research were being drafted, the term 'education-industry links' was taken to mean the active participation by pupils and students in activities led or supported by businesses. However, during the time this project was undertaken, there was a strong political drive for businesses to become involved in the sponsorship of education (for example, with the establishment of Technology Colleges) or in the exchange of knowledge and skills through reciprocal staff placements described in the DfES e-mail above. It should be noted that, unless otherwise stated, all references to education-industry links programmes in this work refer to schemes involving direct pupil/student participation.

Given this ever-changing milieu and lack of cohesive policy, there are no apologies made for this thesis being based on the subjective observations of the researcher and the participants in the twelve pilot courses. Whilst this renders any conclusions unavoidably context-specific, it would seem reasonable to assume that the responses gathered from the researcher, students, teachers, institutions and session leaders may be attributable to others in comparable (if not precisely replicable) situations.

1.6 Education-Industry Links Activities

Recognising a general lack of awareness of the opportunities in, and needs of, modern industry and commerce amongst school and college leavers has led to a profusion of education-industry links programmes being established in the past two decades. Some of these have been purely local developments, whilst others have provided a model networked on a national scale. It is not possible to give details of every initiative currently active, but the work of some of the 'major players' at the time this research commenced is described below. For reasons already outlined, it was decided that the work of one of these organisations, Understanding Industry, would be examined closely throughout this work, but it is only fitting that some of the other schemes operating at this time also be acknowledged and described.

Young Engineers runs a network of science, engineering and technology clubs in schools and colleges throughout the United Kingdom. Over 1,000 centres are involved, with 14,000 students participating and local companies providing expertise and resources. The work is separated into Young Discoverers for primary school children; Young Innovators for 11-19 year olds and Young Entrepreneurs for 14-19 year olds. Their activities enable students to

develop communication and problem-solving skills as well as gaining direct knowledge and understanding of engineering, industry and enterprise.

Neighbourhood Engineers was launched in 1987, with its programme run on a full-time basis by a network of managers across the United Kingdom. Currently there are some 12,000 volunteer Neighbourhood Engineers, 2,000 secondary schools and 180 primary schools taking part. Teachers and engineers work together to assess how best they may use the range of skills and resources available to contribute to meeting the objectives of the School's Development Plan. Students' needs are established and suitable activities to enhance and develop the curriculum are developed. These may involve activities days in the school, industrial visits by students or representation at careers fairs and conventions.

Understanding Industry¹ is a national organisation, established in 1977 and supported by some 1,300 companies. Funding comes from three major sources: contributions received directly from industry (about 150 companies make donations amounting to 60% of UI's income); fees paid by schools towards the cost of their courses (15%) and grants from a variety of bodies such as Education Business Partnerships, Training and Enterprise Councils², charitable trusts and government agencies make up the remaining 25%. In addition to providing money, support from industry also includes the provision of session leaders to visit schools and colleges to run interactive workshop sessions, hosting industrial visits and producing materials. At the time of the research, the programmes were adapted to meet the needs of particular centres, with a standard course involving around eight sessions, either in a 1-3 day conference format or spread over several weeks. Managers from local businesses lead sessions on their area of expertise (Marketing, Production, Finance, Design and Development etc), giving a brief personal career history, an overview of their company and their role within it and setting a problem-solving activities to raise awareness of the issues and skills involved in their line of work. The programmes are seen very much as a partnership, with students gaining an insight into the modern world of work and companies benefiting from their raised profile in the community and the opportunities offered for staff development (presentation skills, motivation, product knowledge etc), particularly for young graduate management trainees. To support the programmes, each student receives a copy of the UI text book which contains chapters on each of the topics offered. In keeping with UI's aim to "inform, involve and inspire" students, the book contains a mixture of theory, case studies and

¹ In the spring of 2001 (ie after the research for this work was completed) UI was re-branded as *Business Dynamics*, with some changes made to the range of programmes offered

² EBP's and TEC's were replaced in 2001 by the LSC, as per the DfES e-mail quoted above

activities. There is also a collection of 'Briefcase' exercises written to help session leaders provide relevant and appropriate activities.

Young Enterprise aims to build an infrastructure enabling students and business people to engage in practical business projects. This is achieved by adopting a 'learning by doing' approach for several projects aimed at students from Year 10 onwards. Project Business (UK) targets 14-15 year olds, running nine one-hour class project sessions in school and a half-day industrial visit. The Company Programme is run for 15-19 year olds, giving practical business experience and personal development through the running of a company. The Team Enterprise Programme is run for the same age group and beyond, and is specifically aimed at students with learning difficulties who follow a flexible programme to gain practical business experience.

There are many other forms of education-industry links run directly by schools and colleges which do not necessarily involve specialist agencies. The most obvious example would be work experience placements, which generally take place for a week or more during Year 10. These are usually organised by a designated teacher, although local Careers Services or Education Business Partnerships may be involved and take on much of the routine administration. Other schemes might involve a series of industrial visits as part of a careers programme or to support coursework; guest speakers from industry visiting schools to address pertinent issues or ad hoc projects negotiated between teachers and local companies, possibly on cross-curricular themes. In the Post-16 sector, most vocational courses have an element of vocational experience as an essential course requirement.

Jones (1997) describes the essence of a good school-industry activity as sound planning, leading to a worthwhile return for all the partners:

- “• *the school draws upon the resources, expertise and experience of industry to enhance and give added value to the classroom-based curriculum*
- *young people gain real-life insights and experience of the world of work which help them achieve their academic and vocational goals*
- *industry helps influence and shape the education and training of its own potential future workforce”* (p4)

1.7 The Effects of Sensory Impairment

In order to appreciate why discrete provision might be deemed necessary for students with impaired hearing or sight, it is necessary to have some understanding of the impact these disabilities have on communication, learning and behaviour. It is not the function of this work to give an analysis of causes of sensory impairment, conduct an in-depth debate on communication philosophies or a detailed investigation of technical aids available, although these issues may receive some mention in the context of the case studies. For readers interested in acquiring more understanding, the appropriate charities (eg RNIB, RNID, NDCS) will be able to supply more detailed information and most libraries will have a selection of appropriate titles available.

Hearing impairment does not just prevent a person hearing, it impacts on their own self-expression and the way they interact in everyday situations. Unlike their hearing peers, deaf babies do not acquire language naturally and casually from the day they are born; they need help in learning to use the residual hearing they possess and need to be deliberately included in activities or conversations to learn the conventions of communication (they will not 'overhear' what is going on and choose to participate). Their condition may be recognised and appropriate hearing aids and family support made available within the first few months of life; around 41%, however, are not diagnosed until after the age of two, although the phased introduction of newborn hearing screening (UNHS) will hopefully change this. The longer deaf children remain undiagnosed, the longer they will be without the equipment and personnel to help them use their residual hearing and acquire language (spoken or signed).

Deaf children have limited access to people who can communicate effectively with them on a daily basis. As most (around 90%) have hearing parents, the whole family has to adapt to meet their needs. If the child's first language is to be British Sign Language, the family will also learn to sign, but most conversations and communication both inside and outside the home will be in spoken English and the deaf child will effectively be excluded. If the child is to be brought up to be 'oral' ie using spoken English as their primary form of communication, they will need constant guidance and input³.

³ For jargon-free biographical accounts of deaf children acquiring natural spoken English, see Robinson (1987) or Rees (1983) and for BSL see Fletcher (1987) - this title is out of print but available from libraries

BSL uses a different syntax to spoken English which may lead to unconventional sentence structures, particularly in written English. For example, the question “where is my red car?” would be expressed in BSL as “my car, red, where?” Concrete language (nouns and some verbs) is fairly easy to learn, but abstract concepts are a lot harder to acquire and use. For example, a child may be able to name a clock or watch, but concepts related to time - tomorrow, urgently, slow down, five minutes - are harder to understand. Humour, passion, irony are difficult to appreciate and deaf people are often very literal. Conversational styles are not picked up informally by overhearing intonation and language-use in different contexts and this can lead to apparently inappropriate remarks or language that seems strangely dated. Deafness is a hidden disability and the everyday encounters most of us take for granted can cause difficulty and embarrassment for the deaf person. Somebody calling from behind and getting no response may interpret this as rudeness; someone giving or seeking information who turns away from the deaf person may mistake their subsequent lack of comprehension for a lack of intelligence. Conversations may involve more touching and physical gestures and include abrupt or direct comments that a hearing person may find disconcerting.

A deaf person finds it hard to carry out two language-based tasks simultaneously. Making notes during a lecture or scanning handouts while the speaker continues with their presentation, are virtually impossible for them. If vocabulary is unfamiliar, they will find it hard to interpret it even given the context, so gathering new information and applying it appropriately, particularly in a technical field, is slow. Hearing children understand and use spoken language before they acquire literacy skills. The same is true of deaf children but, because of their later and slower language acquisition, their development of literacy skills is also delayed. The average reading age of a deaf school leaver is around 9.6 (compared with 14 for their hearing counterparts). It is important to remember, therefore, that limited literacy skills do not indicate a lack of intelligence and that text is not necessarily the best medium for conveying new information. It should be noted that student responses quoted from their questionnaires in later chapters reproduce the actual language used, including ‘errors’ of grammar and spelling.

Whilst deafness does not directly affect intellect, it has a profound effect upon the development of language and subsequently upon social/emotional maturity and, ultimately, life experience. Many hearing-impaired students enter further education to follow nationally-recognised courses, although they often need longer to complete the ‘standard’ educational process. It is common for hearing-impaired students, for example, to follow a GNVQ

Intermediate Level course, even though their GCSE examination results would have objectively qualified them to undertake Advanced Level⁴. This is because the one-year lower level course enables them to gain a working knowledge of the specialist vocabulary they will encounter and to adapt to new learning methods as well as giving them a chance to mature socially so that they are better equipped for the progression. Thus, hearing-impaired 16-19 year olds, whatever the setting and their academic potential, are likely to appear younger in terms of their expectations, behaviour and general knowledge.

Visual impairment: Unless they have an additional hearing impairment or learning difficulty, visually impaired students will have the same level of spoken language and literacy skills as their sighted counterparts. Written information may need to be presented in a particular format for individuals but it is a mistake to assume that all blind people use braille. Only about 12,000 people read braille on a regular basis in Britain, with many visually impaired people preferring large print and some may be able to read normal print. Technological advances enable visually impaired people to scan documents into their computer for large-print display, thus increasing the range of materials to which they have access.

A popular myth is that visually impaired people have exceptional hearing or smell as a kind of innate compensation for their lack of sight. The truth is that a person naturally develops strategies for coping with everyday life and if one sense is weakened there is obviously a greater reliance upon the others. Visually impaired people use common sense and practice rather than magic to perform tasks such as catching the right bus or making a cup of tea.

Another popular image in literature and films is the blind person feeling faces to identify people. In fact, around 77% of visually impaired people have enough sight to be able to recognise friends close up. If they don't recognise someone by sight or voice, they will ask who they are. Those few who rely on touch to identify people and objects are generally multi-handicapped, with touch being their only way of understanding the world.

Depending on the nature and extent of their visual impairment, blind people may not use conventional body language. Some may not face the speaker or they may have mannerisms (facial expressions, physical gestures) that seem odd to a sighted person. Others, particularly those who have lost their sight as adolescents or older, may be very aware of the

⁴ Re-named vocational 'A' Levels with the introduction of Curriculum 2000

importance sighted people place on things such as eye contact and make a conscious effort to conform, even if they are not gaining any personal benefit from it.

It can be seen from this brief analysis of sensory impairment, that session leaders recruited to take part in the pilot courses would need to be more aware of *how to* communicate effectively rather than *what* to communicate. Standard presentation tools such as handouts, overhead projectors, Powerpoint and so on would be less effective than small group discussions, practical demonstrations and direct involvement. Many managers attend specialist training courses in how to give effective presentations and to acquire appropriate interpersonal and technical skills, but many of their standard techniques would be need to be questioned and abandoned to be effective in this context.

1.8 Motives and Aspirations Behind the Research

Bassey (1999) describes three types of empirical research: *theoretical research* (enquiry carried out in order to understand); *evaluative research* (enquiry carried out in order to understand and evaluate) and *action research* (enquiry carried out in order to understand, evaluate and change). The categories provide models, but are not rigidly separated and the researcher may act at one time as a theoretician, at another as an evaluator and at another as an action researcher.

The research undertaken in this project falls mainly into the category of 'action research'. Bassey describes action researchers as:

"... teachers or managers who are trying to make beneficial change within their own workplace. In order to do this it is first necessary to understand what is happening and to evaluate it, then to introduce change and evaluate the new situation. Action researchers are using systematic and critical enquiry in an attempt to improve their practical situation..."

"Whereas successful theoretical research and evaluative research invariably lead to written reports in order to serve the research purpose of advancing knowledge and wisdom, successful action research is often recorded only in the memories of those who participated. They know, and

are wiser because of knowing, what was the outcome of the change in their workplace - but the rest of the world may not be given the chance to share the understanding, " (pp40-42)

At the start of this project, it was very much the aim to investigate and improve the participation levels of students with special needs in education-industry links programmes. The researcher's employment as an organiser of such events for mainstream students and background as a Teacher of the Deaf prompted interest in this field and the hope that the suspected existing low levels of participation would be improved as a direct result of the research process. At a time of increasing integration/inclusion of students with special needs into mainstream settings, it seemed particularly important to identify and address factors which would specifically present barriers to their participating fully, as opposed to simply being present, during such programmes.

It took no more than a general awareness of disability issues to recognise that such programmes presented difficulties in terms of physical access (on industrial visits, for instance), cognitive access (in terms of the level of supporting texts) and sensory access (for example, texts being in media that students could not use). More formal research was needed, however, to identify and define these issues systematically and address them successfully. The following chapters, and in particular the twelve detailed case studies, demonstrate how this was achieved.

CHAPTER 2: CONTEXT AND METHODOLOGY

2.1 Introduction

This research was undertaken in order to investigate access to, and the suitability of, current education-industry links programmes for students with special needs. In acknowledgement of the diversity of settings and participants, and the fact that these courses represented a new endeavour for both UI and the centres involved, the programmes have been referred to throughout this work as 'pilots'. Any of the individual events could be regarded as a 'stand alone' experiment to be evaluated for further development in its specific context. However, reflecting upon all twelve courses together as one piece of research would enable UI to consider the feasibility of developing its products/services to be economically viable and applicable in a variety of situations for students presenting a wider range of special needs. As can be seen from the postscript at the end of Chapter 4, most of the participating centres requested further courses, modified in the light of these initial experiences, while UI considered them collectively and assessed the need for discrete funding, time allocation and specialist skills to be developed in comparison with its existing mainstream provision.

The information was gathered through oral and written accounts supplied by students, their tutors and volunteer session leaders and observations made by the researcher. From these data it was intended to develop programmes sympathetic to the learning styles of students with specific needs, to be run initially as pilot courses and then further developed to enable such students, in both discrete and integrated settings, to participate in a meaningful, quality experience. From this it can be seen that the research process aimed to both identify issues and attempt to address them through a continuous process of development and evaluation.

Because of the number of agencies involved in this field and the continual introduction of new initiatives by governmental and other bodies, it was decided to base the research on the work of one well-established organisation (Understanding Industry). This offered several advantages. The researcher had a pre-existing involvement and was therefore already familiar with the charity's 'products', aims and potential contribution to the field. UI had a national network of Regional Organisers running programmes in a variety of schools and colleges which would enable additional information to be gathered both formally and anecdotally.

Around the time this research was first suggested, UI had begun to acknowledge the difficulties inherent in its existing programmes for students with special needs and received funding to develop pilot courses for hearing-impaired students - this was then used to support applications to other bodies for further sponsorship of courses and resources to be developed for other students with special needs. It was hoped that the celebrations of Understanding Industry's 21st anniversary and the appointment of HRH The Duke of York as its patron in 1998 would further raise the organisation's profile and perhaps ease its access to suitable settings and personnel to develop pilot courses.

In addition to questions of *how* such courses could be organised and run, there were ethical issues raised as to *whether* they should be developed at all. Would there be students whose special needs might render them unemployable and, if so, was it fair or useful to expect them to attend a course demonstrating the workings of, and opportunities in, modern industry and commerce? With a general trend toward 'integration' or 'inclusive education', was it appropriate to be diverting resources into discrete provision rather than extending the applicability of the programmes already successfully running in mainstream settings? Reference would have to be made to the educational theories relating to the aims of post-16 education for students with special needs as well as issues of equality of opportunity.

2.2 Methodological Concerns

Because the research focussed on the work of one organisation, there were fears that it might not demonstrate sufficient scope or academic rigour. However, the rationale for this decision has already been cited. In addition, the findings of a research programme with clearly-defined parameters would leave open the potential for future application, development and comparison in other contexts, whereas an analysis of the subject in a variety of settings might yield data that was difficult to disseminate meaningfully or to use developmentally as the research progressed.

A more serious concern was raised by the potential conflicts of the researcher as a participant in the project. The research would comprise several strands, co-ordinated, implemented and interpreted by one person. This situation obviously raised questions of ethics, impartiality, consistency, data handling and bias, so it was important to address these issues, setting them in context and reflecting upon the overall management of the research.

This provided an opportunity to:

- reiterate the origins of the project;
- identify the people involved at different stages and the interaction between parties;
- reflect upon the effect the direct involvement of the researcher might have in terms of influencing the behaviour, attitudes and responses of other participants, gaining access to institutions, gathering, recording and evaluating data;
- catalogue the processes adopted;
- refer to authors in methodological issues for objective insights.

The project started slowly, with just two pilot courses being run in centres for hearing-impaired students in the first year of guaranteed funding. The experience gained and resources developed enabled a week-long programme in the summer to be run for visually-impaired students. An evaluation of these courses secured another two years' funding from the Lloyds TSB Foundation and led to the two courses for hearing-impaired students being repeated for the next post-16 intake and another college for visually-impaired students requesting a course, for which additional discrete sponsorship had to be secured by UI's London office staff. Three new pilot courses for hearing-impaired students were negotiated for the second year (and these, too, asked for a further course to be run in the next academic year) and three further centres were recruited for pilot courses for the third - and final - year of the Lloyds TSB Foundation sponsorship.

Although the process described seems simple and linear, it has to be remembered that there could be up to a year between the initial contact with a centre and the actual running of a course or conference, during which time there might be periods of virtual idleness and others of frenetic activity with several tasks being undertaken concurrently. Marshall and Rossman (1999) stress that:

“... researchers should allow time and be sensitive to the need for time to pass, flexibility in their roles, and patience, because confidence and trust emerge over time through complex interactions. Roles and relationships do emerge in the field. At the proposal stage, however, the researcher should demonstrate a logical plan that respects the need for time to build relationships. It is not enough to state that trust and relationships are important. The researcher should also display the skills and sensitivities to

deal with complexities in relationships that inevitably emerge during fieldwork." (pp86-87)

Each new course benefited from the experience gained with its predecessors:

- the questionnaires used to measure the effectiveness of the courses were initially adapted from the standard monitoring materials already used by UI, but then had to be further modified to make them more accessible to the students and to yield more meaningful data;
- the standard text book used in mainstream institutions needed to be modified to make it more accessible to students whose disabilities affected their literacy skills, but at the same time giving them a comparable resource; this needed updating each year to keep it in line with the standard product and further modification was needed when supplying it to centres for blind students (for transcription into braille or large print, and later on audio cassette);
- the programmes for the first two pilots were negotiated and both centres happened to pick the same format which proved very successful; this was then presented to the other centres as a template which they could adopt or adapt to meet their own needs.
- at the end of the first year, as agreed with the sponsors, a handbook for session leaders working with sensorily impaired students was prepared by the researcher for publication and distribution by UI

The role and involvement of the researcher became multi-faceted to incorporate several diverse responsibilities:

- impartial *observer and recorder* of the research project;
- *practitioner* in the field of special education;
- *employee* of the organisation facilitating most of the research opportunities;
- *architect* of the pilot courses;
- *trainer/coach* of the session leaders
- *contributor* to the programmes being observed;
- *adviser* to the centres' staff in developing and evaluating the programmes

It soon became apparent that some of these roles could present conflicts of interest. For example, having designed and organised the programme, it would be hard to reflect

objectively upon its effectiveness; having a prior and ongoing involvement in special education would inevitably influence the priorities and understanding of the programmes' content; in training the people who would deliver most of the programmes, there was scope for further influence upon their management and effectiveness ... and so on.

This issue is addressed by Robson (1993): “*...ethical dilemmas lurk in any research involving people. In ‘real world’ research we may not be able to, or wish to, control the situation but there is almost always the intention or possibility of change associated with the study. This forces the researcher, wittingly or not, into value judgments and moral dilemmas.*” (p30) In this instance, the researcher became involved, and developed diverse relationships, with several parties.

Teachers.¹ Teachers were crucial in the development, implementation and evaluation of the pilot courses. Firstly, they were the gatekeepers who could grant or deny access to the centres and students. In nearly all instances, initial contact was made with Head Teacher or Principal of a centre; they could then determine their own level of involvement and, consequently, the relative levels of involvement of their designated staff. First contact was made by telephone, letter or fax², giving a brief introduction to Understanding Industry and an explanation of the funding available to run pilot courses with a suggestion that a meeting be set up to discuss their possible involvement. It was acknowledged that they would need more information before being able to contemplate negotiating a programme and a ‘goody bag’ was duly dispatched containing a copy of the mainstream UI text book, a sample of a typical session activity, guidelines for course management and standard introductory literature outlining the work of Understanding Industry, along with a letter giving greater detail about the Lloyds TSB project and ways their centre could become involved.

In every instance, this approach was successful and led to a meeting with appropriate staff (that is, those who would be directly involved in any pilot course that was set up). The researcher then took on the role of Salesperson/Negotiator, identifying the needs of the potential client, outlining the products available and effecting an acceptable compromise. By the end of the meeting, the date(s) for the course/conference would be agreed; a provisional date set for the session leaders' disability awareness workshop and the topics to be included

¹ The term 'Teacher' is used to cover teaching staff of all grades including Principals, Classroom Assistants, Lecturers, Tutors, and also non-teaching staff who would be involved with the students on the course or conference, such as Technicians or Signing Interpreters.

² See Appendix A

on the programme would be decided.

Such positive responses were much appreciated and obviously enabled the researcher to feel confident in her dealings with the various centres. However, it had to be accepted that a negative response was always a possibility and that this should not be taken as a personal rebuff. Delamont (1992) warns that "*[d]ifficulties in establishing rapport may be due to culture-clash ... or personality, or tensions in the field setting.*" (p122). This could have been a very real possibility in the case of one venue described in the later chapter of case studies, where the centre had been the subject of a disappointing OFSTED report and morale was subsequently low at the time the conference was being set up.

Session Leaders. The next step was to act as a Recruiting Officer for the session leaders. These were identified in various ways: networking with regional Understanding Industry personnel; networking through established session leaders who might have contacts in the appropriate region; and cold canvassing by telephone or fax³. The process was similar to that used to gain the interest of the Heads of centres: describe the project, explain the commitment required and offer to send further information. As session leaders volunteered their services and the programme began to take shape, the centre would be informed of progress.

About a month before the course/conference was due to run, a training workshop was held for the session leaders at the centre concerned, casting the researcher in the role of Trainer. This role was, in fact, shared with one or more staff from the centre who would explain the nature of their students' special needs, the philosophy and practice employed in meeting these needs in that particular educational setting, a tour of the site and a practical deaf- or VI-awareness raising session. The Researcher-Trainer's input was an expanded reiteration of the work of Understanding Industry, setting this information in the context of the special school/college, an explanation of how the project would be monitored and the provision of sample materials.

Students. Crucial to the whole project, the students interacted with the researcher in various formal and informal ways. Firstly, the researcher acted as the Event Co-ordinator who, having set up the course/conference behind the scenes, also became its unifying, visible 'face' for its duration by leading the Introduction and Summary sessions; 'chairing' each session; acting as a Support Worker when session leaders needed a Scribe or someone to help

³ See Appendix B

the students understand a task they had been set. At the same time, she was treated as a Visitor/Guest to the centre and accorded appropriate hospitality; there were also opportunities to act as a Confidante between sessions when students would discuss their feelings about the event in progress or disclose details of their studies and personal lives.

Understanding Industry, The Lloyds TSB Foundation et al. Although working largely autonomously, as an Employee of UI, the researcher had a duty to record and report the progress and outcomes of the pilot schemes. This information was then used by staff at the London office to keep the Foundation apprised of the use to which its funds were being put and the basis of appeals to other grant-making bodies to gain further sponsorship for development and consolidation work. The London office was also responsible for ordering and supplying appropriate quantities of the modified materials developed for the pilot courses and needed a suitable period of notice to meet demands. Most of the centres running pilot courses were in areas with their own UI Regional Organisers: these people had to be approached tactfully so that they perceived the project as an opportunity for their own professional and business development, rather than as an invasion of their territory.

The University of Southampton and ESRC. Whilst setting up and running the pilot courses, it was important to remember that the researcher, as a registered Student in receipt of an ESRC Studentship, also had an obligation to inform the University of the work in progress and its contribution to the developing thesis.

Robson (1993) outlines the growth and role of the 'Practitioner-Researcher' and his description tallies well with the situation being investigated here:

"The practitioner-researcher is some one who holds down a job in some particular area and at the same time carries out systematic enquiry which is of relevance to the job...the carrying out of the enquiry is likely to be in addition to their normal full-time responsibilities. Another version of the practitioner-researcher is the true hybrid: someone whose job is officially part-practitioner, part-researcher. This might be a short-term arrangement to enable the enquiry to take place, or a continuing joint appointment...The move is towards study relevant to the professional setting, in part at least determined by the agenda and concerns of that setting...The traditional solution of creating a division of labour in professional work between

practitioners and researchers has its own problems when the intention is to influence practice. Neither does it help in developing the extended professional.” (pp446-448)

Being a qualified Teacher of the Deaf (ToD) was both an advantage and hindrance when dealing with teachers at the various centres. On the one hand, it lent credibility to the proposals and reassured staff that the wider implications of hearing-impairment were fully understood and would be taken into account when drafting the programme. However, some staff (generally those not involved in the early negotiating phase or not long established in their role) clearly felt that the involvement of an outsider indicated they were in some way lacking the necessary skills to make adequate provision for their students.

This led the researcher to modify her behaviour: in the first instance, to radiate confidence and consult supportive staff as co-workers. In the second case, a more deferential air was adopted, with information being imparted under the guise of support-seeking questions (“I’ve prepared my summative session but wondered whether your students will have experience of organising themselves in groups?”). Whilst trying to avoid extreme Uriah Heap-like obsequiousness, staff who were clearly feeling insecure or even hostile about the pilot course, needed to be shown that their expertise was valued and the researcher was happy to receive guidance to foster an harmonious, positive atmosphere. As Delamont (1992) points out, “*[a]n observer is likely to be in the way when hard physical labour has to be undertaken, but one is equally obtrusive in classrooms. It is hard to recognize that as a researcher one is a nuisance (at best) and that many people in the setting may actively resent, fear or resist one’s presence.” (pp122-123)*

These issues are discussed by the various contributors to Clough and Barton (1995) and in particular, John Hill’s chapter, “Entering the Unknown - Case Study Analysis in Special Schools”, sums up the experience perfectly:

“The decision to be involved ‘on the ground’ did, however cause continual difficulties. Thus some involvement did arise naturally out of the early formulation of relationships in the schools and ... may be attributable to the fact that I had a working knowledge of special schooling and was less of an ‘outsider’. The acceptance of my presence, however, and my general participation in the life of the schools posed problems. Indeed, at times it became difficult to be detached from events. It also meant that I was less able

to 'control' my role as a researcher and also to maintain objectivity.

"Occasions also occurred when my role as an 'outsider' was clearly obvious - for example, although most staff appreciated 'an extra pair of hands', some made it clear, if not in words, that I was disrupting their daily routine. It was at such times that I became aware that in reality I was at the edge of what was going on." (p103)

Being present throughout the courses/conferences meant that informal, almost social, relationships were built up between the researcher-and-students, researcher-and-teachers and researcher-and-session leaders. Potential influence by the researcher on the running of the course and the evaluations given at the end was therefore a real concern: if a good rapport had been established with one or more of the parties involved, they might find it difficult to give negative responses or even constructive criticism, which ultimately would devalue the pilot schemes. This was addressed by stressing that the event had been a pilot course and that, whilst it had been very successful, the researcher was keen to develop proposals for an even better event the following year and that positive suggestions from those involved would be essential. In this way, the emerging 'friendships' were able to be used to advantage without compromising the investigative rigour of the project.

A similar dilemma emerged with regard to disclosing the fact that the courses were being used not just to increase Understanding Industry's portfolio of 'products', but also contributing to the researcher's personal project. Once more, if this was disclosed it might invoke a 'sympathy' response and skew the running, outcome and evaluation of the project. However, it would be ethically wrong to have people unwittingly participating in the research process. This problem was addressed by informing people about the research being undertaken almost as an aside. In the case of teachers and session leaders, this was done, literally, by imparting the information in parentheses⁴ when introducing the project. Students were told verbally during the introductory session when the background to the course/conference was being explained and a short personal biography was being given by the researcher.

Because each pilot course involved relatively few people and it was fairly easy to establish a rapport, particularly between the researcher and other professionals involved, care had to be taken not to exploit the goodwill of the people or institutions. Session leaders were

⁴ See Appendix B

not paid for their contributions and many gave up considerable periods of time in order to develop suitable practical activities and to consult with the centres over appropriate language and methods of presentation. This time was contributed by them personally in terms of foregoing leisure time and also by their employers in allowing them to attend the training workshop, run their own session and often donating time and materials from company resources. Many supplied prizes for competitive activities or 'freebies' as goodwill gestures. Obviously, such professionalism and generosity was much appreciated by both the centres and Understanding Industry, and further contact would be desirable. However, a balance needed to be achieved between appreciation and exploitation as individuals could not be expected to make such huge personal investments in activities very often.

Centres were expected to provide at least basic hospitality to all Visitors - drinks and biscuits at break times, lunch for those arriving or departing at that time of day, car parking facilities - and most made a particular effort, especially where catering was concerned. Demands were also made upon administration staff for last minute photocopying and sundry stationery items, and technical staff were also on call to help with recalcitrant video equipment or reluctant overhead projectors. Whilst each request was minor and quickly dealt with, it has to be remembered that there were several people visiting the school for short intense periods over just a few days and that all the normal functions of the centre still had to be maintained.

Students, too, had unusual demands made upon them: they were used to being taught by qualified Teachers of the Deaf or Blind or having support from Communication Support Workers. The courses/conferences presented them with people who were in the main unused to communicating with sensorily-impaired people and were accustomed to providing information verbally and/or visually according to their own communication needs rather than those of their audience; the structure and length of the sessions differed greatly from their usual timetable and the working day was extended for most of them. In order to help them overcome the problems of concentrating for intense periods (lip reading, assimilating new vocabulary, working in unfamiliar groupings), half-hour breaks were inserted between sessions. Informal acknowledgment of their efforts from both the teachers and the researcher was therefore essential to keep up morale and commitment.

When considering some of the ethical issues involved in designing qualitative research, Marshall and Rossman (1999) assert that:

“Role, reciprocity and ethical issues must be thought through carefully in all settings but most particularly in sensitive and taboo areas...If the researcher will require people to change their routines or donate their time, it must be voluntary. What is routine and acceptable in one setting may be harmful in another; what is volunteered in one may be withheld in another. The researcher cannot anticipate everything, but she must reveal an awareness of, and an appreciation for and commitment to, ethical principles for research.” (pp90-91)

Robson (1993) provides a pertinent and reassuring analysis of the advantages and disadvantages of carrying out research as an ‘insider’. Although it can sometimes be difficult to establish credibility for one’s self or the research project when already personally known to those from whom information and support will be sought (what might be termed ‘prophet in his own land’ syndrome), there are advantages of knowledge and access as well as what Robson calls ‘*Practitioner-researcher*’ synergy whereby practitioner insights and roles help in the design, carrying out and analysis of useful and appropriate studies (p447).

In an attempt to imply as much objectivity as could reasonably be expected given the circumstances described, it was decided to present this thesis written in the third person, despite its being entirely based on the work of the author.

2.3Setting Up

As already stated, at the time this research programme was being drafted and the preliminary background work was being undertaken, Understanding Industry was encouraged to apply for funding from the Lloyds TSB Foundation to develop programmes for hearing-impaired students as it was felt that such students did not have full access to current school-industry links provision or careers information. A proposal was duly drafted, indicating the time, money and resources needed to set up two pilot courses in the first year, with the situation to then be reviewed and further funding and support to be negotiated for up to two further years and six more pilot schemes. Being a qualified, practising Teacher of the Deaf as well as a Regional Organiser for Understanding Industry, the researcher was approached to work with staff in the London Office on this proposal and to co-ordinate any project that resulted from a successful application.

Once the grant had been confirmed, a lot of time was spent identifying the best way for it to be spent. Understanding Industry already ran a range of flexible courses and conference formats with a content that was successful and valued by existing client groups and with costings calculated based on experience and the multiple use of materials already developed. This particular project was addressing the issue of a sector of the student population either being totally excluded or unable to gain from participation to the same extent as their fully-hearing counterparts. There were several issues to be addressed in order to develop two pilot courses which would immediately tackle some of these problems and be capable of extension and development in the immediate future, including questions of costs and time specifically generated by the unique nature of the courses.

2.4 Establishing a timescale

A major factor in the proposal was the time needed for preparation: identifying centres to run the pilot courses; negotiating programmes suited to the students' needs; adapting existing materials or producing new ones to meet the special needs of the students; recruiting and training suitable session leaders for the pilot courses; liaising with other UI Regional Organisers and monitoring/evaluating the two pilots.

To help assess the minimum time which would need to be allocated to the project, several Teachers of the Deaf were approached informally for their opinions. These people were all involved in Post-16 education, examination supervision, text and external examination modification or the production of in-house resources and most were members of NATED⁵ or BATOD⁶. The unanimous response was that 'considerable' time would be needed, firstly to produce useful and relevant materials and, secondly, to fully prepare session leaders for their input.

The general consensus was that a minimum period equivalent to a full term (roughly 60 days) would be needed to produce or adapt resources. It was also considered important not to under-estimate the amount of time necessary to train session leaders. These would most likely be drawn from two sources: existing session leaders from the appropriate regions who were willing to adapt their usual presentations to suit the new audience, and people with no previous UI involvement who were familiar with the needs of deaf people and had

⁵ National Association for Tertiary Education for Deaf People

⁶ British Association of Teachers of the Deaf

appropriate professional backgrounds (for example, recruited through organisations such as DELTA⁷ or the NDCS⁸, many of whom are the parents of deaf children). In either case, the time involved in preparing and delivering one or more specialised training sessions would be greater than that required to run a conventional training day in a large company for prospective session leaders, for which training materials and standard resources had been developed for several years.

After much negotiation, it was agreed that 60 days directly involved in setting up the two pilot courses would be funded at an agreed rate of pay, with a further ten days allowed for additional work identified and completed by the Project Co-ordinator (the researcher) or another person co-opted for their expertise. This time was to be used to negotiate with potential pilot centres, plan the programmes, recruit and train session leaders, modify materials, run the pilots and evaluate them. The remainder of the grant would be used for the production of resources (books, exercises, training aids) and the administrative costs normally associated with running courses such as the Organiser's salary and travel expenses. Obviously, this would impose some restrictions on the nature and extent of work to be undertaken, but it was felt to be reasonable and feasible.

The following summary of one of the pilot conferences is given to illustrate the administration process and the involvement of the researcher in the projects and the lives of their participants. The centre is a non-maintained school for hearing-impaired children in a seaside town in the North West of England. It has around 50 pupils/students aged 11-19, taught either on site or at a local further education college.

8th October 1998

Letter of introduction sent to the Head Teacher⁹

30th October 1998

Following an exploratory telephone conversation, a meeting is held at the school between the researcher, Head of School and Head of the FE Department. An outline programme is devised and provisional dates booked for the conference and session leaders' training workshop

⁷ *Deaf Education Through Listening and Talking*

⁸ *National Deaf Children's Society*

⁹ See Appendix C

<i>November 1998</i>	Potential session leaders identified and contacted, further information sent if responses positive and plans confirmed as necessary; modified materials ordered from London office; RO for Merseyside contacted and enlisted to help
<i>March-April 1999</i>	Fax sent to the Head to give a progress report; this and successive messages meet with no response
<i>24th April 1999</i>	(getting worried) Fax sent to head of FE; message received by return explaining the Head is on long-term sick leave; dates are in the school diary but staff are unaware of what is involved; detailed telephone conversation with Acting Head followed by further information in the post
<i>April-June 1999</i>	Complete session leader recruitment; information sent regarding training workshop and all confirm attendance; school notifies researcher that more students than anticipated have signed up - London informed that more modified text books are needed
<i>21st June 1999</i>	Training workshop held at the school ¹⁰ ; teachers still seem under-prepared but committed and session leaders are all keen; modified text books arrive at school and office staff organise them into folders ready for distribution
<i>June-July 1999</i>	Accommodation booked; materials duplicated, resources collated; some session leaders telephone to discuss their plans
<i>12th-14th July 1999</i>	The Conference! ¹¹ 18 students; 2-4 teachers present at all times; all session leaders arrive promptly and provide varied experiences; students' enthusiasm and conduct are superlative; session leaders all express willingness to return, run sessions in mainstream schools or host industrial visits to their companies; teachers very impressed with the whole event and keen to see it extended in the future; local press take photographs and details for their education supplement, providing welcome publicity

¹⁰ See Appendix D

¹¹ See Appendix E

for all concerned; the modified books had not been distributed in advance - they were put in a teacher's office and she had not realised what she was meant to do with them; distributed at the beginning of the second day of the conference

July-August 1999 Researcher writes up summaries/evaluations/reports in various formats for all interested parties

2.5 Recruiting Participants

To some extent, the culture of the participating schools/colleges would affect the amount of time required and the type of modifications having to be made to existing materials. There were many variations to be considered and it would be important to select centres that would represent as much of the spectrum as possible and offer experiences which could be assessed and developed for use elsewhere.

Integrated (or inclusive) settings would have had the advantage of having students used to working in a mainstream environment and coping with conventional language and practices. This situation would be able to identify problems hearing-impaired students had in dealing with unfamiliar materials and speakers, and the compromises and strategies needed for them to cope. However, it would only present students who had already proven their ability to 'get by' and, if the project was to be linked meaningfully with this research, then students already experiencing some degree of segregation or exclusion would be preferable candidates.

‘Special’ schools and colleges for either residential or day students would have the advantage of presenting a wider range of sensorily-impaired students and they would be more accustomed to articulating their needs and difficulties. Even within this supposedly homogeneous group there would be a wide variety of educational styles and practices involved: residential students attending mainstream colleges with specialist support; colleges running in-house courses; sixth form or further education departments attached to special schools; communication philosophies involving varying degrees of oral and manual languages. It would be possible to have students involved in the project who were studying on a range of courses from the pre-GCSE to Higher Education and it was likely that some would have secondary disabilities (either physical handicaps or learning difficulties).

Two centres were initially approached and they both expressed an interest in participating in the development of the pilot schemes. The first was a selective residential secondary school for hearing impaired children, with a large sixth form offering a range of 'A' Level and GNVQ courses, mostly in-house. The school follows a natural aural philosophy: sign language is not used as a form of communication either in class or in the residential areas. The second was a residential college drawing post-16 students from the whole of the United Kingdom. It has around 200 students studying on a variety of courses, mostly on site. The college uses Total Communication (a combination of spoken and signed language). Both centres offered GNVQ courses in Business and Administration and it was decided to draw the majority of students for the pilots from these groups as they would have some prior understanding of the topics to be addressed and the programme would help deliver valuable information for inclusion in their coursework.

2.6Developing the Programmes

Once the programmes had been agreed, it was necessary to identify session leaders. This involved a process of networking through established contacts, as already described, and cold canvassing companies found in Yellow Pages for the two areas.

The major task involved the re-writing of the text book. Both centres had opted for a loose leaf format, incorporating space for students to make their own notes. It was decided to re-write each chapter of the book, keeping to the spirit of the original but with modified language and streamlined text. Each chapter would be printed on different coloured paper and given its own simple logo in keeping with the content - for example, a picture of a calculator was used for the chapter on Finance - and which could be used to break up the text visually at key points. A vocabulary section would be drawn up for each chapter and space left at the end for students to add their own comments, notes and queries both before and during the course. There were several advantages to this system:

- it would enable minor alterations to be made to any chapter without major disruption to the whole text;
- it would facilitate the production of an accompanying text for any programme that exactly matched the units being studied; for example, the grammar school had decided to have a Production but no Small Business session, whereas the opposite was true at

- the college;
- chapters could be produced, amended or omitted to meet specific needs of different centres so that a bank of materials could be collected and selected to support a variety of programmes;
- a ‘master’ copy of the standard UI text book would be given to the centre for the staff to use as a resource for future classes or to extend the programme content once the event was over.

2.7 Research Tools Applied, Reviewed and Revised

This research required a hybrid methodology due to the lack of existing data on the subject, the diversity of settings in which research was conducted and the range of participants contributing to the project. In addition to observation and personal dialogues (both formal and informal) with individuals representing themselves or their institutions, an attempt at producing substantive, quantitative data was made by the use of standardised questionnaires used during the various pilot studies.

Understanding Industry had a pre-existing bank of differentiated questionnaires routinely issued to students before and after their courses, to tutors to monitor the content and quality of courses in progress and to session leaders to reflect upon their experiences and there were also pro forma analysis sheets for UI personnel to summarise the responses¹². For the purpose of monitoring standard courses and conferences in mainstream settings, they had proven useful, simple and effective. However, as a tool to evaluate the particular experiences of students with special needs, they were of limited use for two reasons:

- they did not ask about students’ prior or current involvement in other education-industry links activities;
- the language used (originally aimed at traditional A-Level sixth-form students) was not readily accessible to students with learning difficulties or delayed language acquisition.

The students’ questionnaires were modified to address these issues¹³ and employed, apparently successfully, in the two pilot courses run for hearing-impaired students in 1998 and reproduced in large print format for visually-impaired students in 1998 and 1999. The

¹² See Appendix F

¹³ See Appendix G

questionnaires for tutors and session leaders were not felt to be in need of modification at this stage, although these contributors were encouraged verbally to expand their answers or submit further observations separately if they wished to do so.

In the spring of 1999, the first of three pilot courses for hearing-impaired students booked for the current academic year was run at a school in London. The school uses Total Communication, with pupils organised into tutor groups according to their specific language profiles. Whilst all the pupils use some form of manual communication, they may use British Sign Language or Sign Supported English, depending on their needs. The 16+ Department therefore contains students who, whilst all fluent and confident manual communicators, have varying degrees of oral comprehension and literacy skills. A further complication is that the school has a wide catchment area involving students from diverse ethnic and social backgrounds, with English (spoken, signed or written) not necessarily being the first language in the students' homes.

It became apparent during their completion in the introductory session that the modified questionnaires were not really suitable for this group. Despite the simplified language and more direct questions used in comparison to UI's original documents, the students were not clear as to what information was being sought or how to express it. The signing Interpreter negotiated definitions to give the students: for example, 'industry' was first changed to 'business' and then further refined to 'the world of work'. Even this did not convey the spirit of the questions and several students made responses based on school 'work' as this was the most familiar context of the word for them.

It was felt that information given in this way would be of very limited use and so, before the course progressed further, the student questionnaires were further modified¹⁴ to make them simpler to use and easier to understand, which would in turn render them more useful when analysing the responses. The new post-course questionnaires were administered during the concluding session, although it was decided not to ask students to 're-do' their pre-course responses.

There were some misgivings about changing the data-gathering tools part-way through the research, but upon reflection it was felt more important to gather meaningful information as closely as possible from source than to have convenient and tidy statements made either without full comprehension or greatly removed from their originator's lived experience or

¹⁴ See Appendix H

expressed thoughts. Robinson (1993), in her description of Problem-Based Methodology (PBM), stresses that “*a methodology ought to reflect, rather than be indifferent to, whatever knowledge we have about the subject of its enquiry.*” (p23).

“PBM is appropriate when researchers intend their work to contribute to the improvement of problems of practice ... A knowledge of PBM ... should help practitioners, researchers and those who fund them to understand why much research had disappointing practical results and what is required given that one does wish to make a practical contribution. The choice between PBM and other approaches is neither a choice between theory and practice, nor a choice between rigour and relevance... it means being prepared to move back and forth between academic theory and theories of action in a mutually educative dialogue about the implications of each for the resolution of the selected problem... I do not claim that PBM is a paradigm ... Those readers whose methodology reference points and inspiration are defined by paradigm membership will ... be challenged ... to think across those boundaries and to evaluate their current research practice, not in terms of its adherence to paradigm characteristics, but in terms of its degree of inclusion of those features of inquiry which enhance their chances of making a contribution to the resolution of educational problems.” (Preface pp ix-x)

Whilst re-appraising the students’ questionnaires, it became apparent that the original tutors’ questionnaires did not reflect the unique nature of these pilot courses. This in turn meant that the quality and relevance of tutors’ responses was limited and so these too were amended¹⁵ and one was issued to the tutor involved with the course in progress.

Having overhauled the data-collection tools for the students’ and tutors’ responses, it seemed sensible to take a fresh look at the session leaders’ questionnaires and these too were amended¹⁶ to bring them into line with the new style and, again, increase their relevance in evaluating the effectiveness of the pilot courses in increasing the access of students with special needs to education-industry links programmes. The London course was too far advanced for the new questionnaires to be issued to participating session leaders, but they would be used for the two pilot courses planned for the summer term.

¹⁵ See Appendix H

¹⁶ See Appendix H

Observation of the students completing the revised post-course questionnaires suggested that they found them easier to understand and use. Several asked for guidance from the Interpreter and their tutor, but this was largely to confirm their understanding of the 1-5 grading system for their answers rather than for translation of the questions themselves. Generally, the speed with which the forms were completed and the conversations generated suggested this was a much less stressful exercise than the completion of the preliminary questionnaires just five weeks earlier.

It was appreciated from the outset that 'students with special needs' did not comprise an homogeneous group and that the diversity of needs and methods of addressing them would be wide-ranging. However, in order to collect data on their involvement with education-industry links programmes it was felt necessary to have a common core to the research strategy that would allow for an element of comparison and evaluation. It was felt that by using similar materials throughout the research process, patterns of experience could be identified and recommendations made.

Although modified questionnaires used in the initial courses run for hearing- and visually-impaired students seemed to be effective, the experience in the London school immediately raised doubts about their universal application. If students were to be able to give personal accounts of their prior involvement with industry at the start of the course and to evaluate their experiences during the running of the UI programme, they needed an opportunity to express themselves in language which was meaningful to them *and* would convey that meaning to the researcher and subsequent readers. Conversely, it was feared that re-drafting research tools at this stage could reduce the significance of their findings or even nullify the information previously gathered.

It was important to consider the purpose of the methodology: whether the aim was to collect responses to a set of pre-determined questions for quantitative analysis or to collect diverse but significant personal accounts from students and others relating to the research topic. This latter goal was the prime motive and so facilitating the recording of the message, rather than preserving the sanctity of the medium, had to take priority. Adherence to a data collection format could not be allowed to restrict or misdirect the information respondents could, or wished to, contribute.

Miles and Huberman (1994) acknowledge this problem, stating that "[s]tudy design

decisions can, in a real sense, be seen as analytic - a sort of anticipatory data reduction - because they constrain later analysis by ruling out certain variables and relationships and attending to others. Design decisions also persist and support later analysis; they prefigure your analytic moves ... ” (p16). Whilst this can be a good thing in that it prevents too many interesting-but-irrelevant issues being raised and pointlessly pursued, some research projects (such as this one) can benefit from ‘rogue’ information being ‘accidentally’ gathered and highlighting beneficial or detrimental effects of events which had not been considered by the researcher but were significant to her subjects.

It is important to remember that there were formal responses being gathered from three sets of people who might give very different accounts or have disparate objectives each time a course was run. There would also be formal and informal observation by the researcher during the running of the programmes and dialogues between all concerned (Researcher/Course Organiser, Teachers, Session Leaders and Students) in various combinations before, during and after the courses ran. These conversations might be recorded, overheard, informally reported to a third party or referred to in the questionnaires, and be subsequently incorporated into the final evaluation by the researcher. These less structured, unsolicited contributions could be as valid and informative as the more formally gathered data in assessing the accessibility of education-industry links programmes by students with special needs: when this was considered, the consistent format of the questionnaires seemed to be less important. *“Words, especially organised into incidents or stories, have a concrete, vivid meaningful flavor that often proves far more convincing to a reader - another researcher, a policymaker, a practitioner - than pages of summarised numbers.”* (Miles and Huberman, p1).

This belief is further supported by Denzin (1989). He believes it is the job of the researcher to relate biographically meaningful experiences to wider society and institutions. The more objective scientific methods (involving validity, generalizability and so on) have to be set aside in favour of a concern for meaning and interpretation of the accounts presented by the people undergoing the experiences being investigated.

2.8Summary

The research undertaken involved many elements. The positive aspects were that the

work was neither narrowly confined to objectively observed case studies (in which valuable information only accessible through personal informal involvement might be lost), nor did it simply comprise a series of successful but isolated events lacking in opportunity for development or application elsewhere. The experience gained and lessons learned from each pilot course had immediate application in the real world as well as cumulatively presenting a 'mix and match' selection of good, bad and possible practice to increase the effective involvement of students with a range of special needs in education-industry links programmes.

Potential drawbacks presented by the researcher adopting several roles and developing inter-connecting relationships with parties forming part of the research subject have been identified. To avoid these complications would have meant stepping away completely from the process and handing over the reins of organisation and evaluation to another party, which in turn would impact on the nature of the project and radically alter the culture in which it was being conducted. Upon reflection, a degree of 'contamination' may have to be acknowledged and accepted as being of marginal significance in any final conclusions reached as a result of the process described.

The decision to amend the materials used in gathering data was felt to be justified and, indeed, beneficial to the progress of the research for several reasons:

- conclusions drawn from responses to questionnaires could not be deemed significant if the respondents had not fully understood what they were being asked;
- there seemed little point in researching access to education-industry links programmes by students with special needs if the research tools themselves were not accessible to the subject group;
- because of the diverse settings, participants and experiences involved, this research project could not be expected to reach just one definitive conclusion followed by the drafting of a single recommendation to address it. It was to be expected that there would be a range of *trends* indicated and that, in turn, a range of suggestions or solutions might be formulated to consolidate or enhance opportunities for students with special needs. It would therefore be acceptable for the research tools to be flexible enough to gather comparable if not identical information from each setting.

It was therefore concluded that not only had the decision to further amend

previously-modified materials during the period of research been correct, but that further adaptations should be considered if neither of the previous versions proved appropriate at future venues. Concerns about the analysis of responses gathered through differently-worded but philosophically-comparable materials was offset by Delamont's (1992) reflections on the analysis of qualitative data:

“As long as the same beliefs and practices that characterize choosing the topic, gaining access, doing the reading, establishing rapport, and recording the data are used, analysis is straightforward. It is more important to have thought carefully about it, documented the process, and to have recognized the strengths and weaknesses of what was done than to have followed a ‘correct’ recipe.” (p152)

In short, it was expected that this research, whilst addressing the key issues originally identified, would also strongly demonstrate an understanding of current educational theory and an appreciation and application of recognised academic research methodology.

CHAPTER 3: LITERATURE REVIEW

3.1 Introduction

Literature was sought for two purposes: to provide inspiration for, and examples of, good practice in research methods which would help with the structure and execution of this study; to provide background information on the issue of access by students with special needs to education-industry links programmes.

Finding literature directly relevant to the theme of this work proved very difficult. There were titles available dealing with generic special needs issues, others dealing with the specific needs of students sharing an identified disability or educational disadvantage and books on modern educational provision (academic and vocational) and philosophy. It proved impossible, however, to find works dedicated to education-industry links programmes (and little or no mention was made of this subject in volumes on vocational education) and, subsequently, there were no documented data on the experience of students with special needs on these programmes.

Several searches on the Internet and through various social science databases proved no more fruitful. An 'e-mailshot' to various DfEE personnel identified during this trawl eventually elicited the following response from the Department for Education and Skills' library in Sheffield:

“...A colleague has done some research on your behalf, but we have been able to come up with very little that matches your request ... As you can see, some of these references are to material which is quite dated. Part of the problem - as you have already found - is that we have large collections of material on Education/Industry and Special Needs but very little on anything linking the two areas. My colleague additionally searched 2 journal databases ... but had no success in finding relevant articles there either.”

Given the vast changes that have taken place in educational provision for students with special needs in the past twenty years ie the reports by Warnock and Tomlinson, establishment of the Further Education Funding Council, followed by the Learning and Skills

Council and introduction of OFSTED inspections, it was felt that only literature published after 1980 would be consulted (unless an historical perspective became necessary during the development of the study).

3.2 Key Sources

The following texts proved to be the most useful in identifying possible methods for gathering and interpreting data and defining and establishing the context in which the research would be conducted.

Research Methods:

Gladwin, C.H. (1989) *Ethnographic Decision Tree Modelling*

“[Researchers] want to know why people in certain groups do what they do. They need to know how these people make a real-world decision, and they need to know the specific decision criteria used by the group in question, in case they can intervene in the decision-making process with a new policy designed to make things better. They are not so interested in theorizing about the choice process itself, or even in knowing how a particular individual makes a decision, but are concerned with predicting group rather than individual behavior. Yet, they realize decision making is most frequently an individualized enterprise, although groups of people in meetings and individuals on their own both make decisions. However, because they want to predict group behavior in situations in which it is individuals who are making the decisions, they want a social scientist to tell them why most of the individuals in the group make the choices they do.”

(pp7-8)

Decision trees employ a method used for two decades to enable ethnographers in many cultures to predict actual choices of individuals in groups. It uses ethnographic¹ field work techniques to elicit from the decision makers themselves their decision criteria which are then combined in the form of a decision tree, table, flowchart or set of ‘if-then’ rules or expert

¹ ‘Ethnography’ is defined as the work of describing culture from the native’s or insider’s point of view using ethnographic interview and participant observation.

systems which can be fed into the computer. It has two distinctive features:

- reliance on ethnographic fieldwork techniques to illustrate the decision criteria
- an insistence on a formal, testable, computer-based model of decision process which is hierarchical or tree-like in nature.

Decision tree models blend the different research approaches of cyclical-discovery (ethnographic research) and straight-line research plan (as in other social sciences such as economics, political science etc). They are *simplified* pictures of the real world, like model trains.

*“The form of a decision tree model is thus amazingly simple, with the choice **alternatives** in a set at the top of the tree, denoted by { } and the decision **criteria** at the nodes of diamonds of the tree denoted by < >, and the decision **outcomes** denoted by [] at the end of the **paths** of the tree. The decision maker starts at the top of the tree and, independently of other decision makers, is asked the set of questions in the criteria at the nodes of the tree, and, based on his or her responses is ‘sent down’ the tree on a path to a particular outcome.”* (pp13-14)

Several examples of the model and processes are given in the book, including decisions by farmers on whether to plant potatoes and by residential students deciding whether to book canteen breakfasts. Common problems are identified. The value of this method is seen to be its application by policy planners in developing long-term strategies and in providing feedback to social planners as to why initiatives may be failing.

Although this model would not be used as the foundation for the research to be undertaken in this study, its processes and philosophy could conceivably be modified for use when researching participation in programmes by students with special needs.

Miles, M.B and Huberman, AM (1994) *Qualitative Data Analysis* (2nd edition)

“[Q] ualitative data are more likely to lead to serendipitous findings

and to new integrations; they help researchers to get beyond initial conceptions and to generate or revise conceptual frameworks. Finally, the findings from qualitative studies have a quality of 'undeniability'. Words, especially organised into incidents or stories, have a concrete, vivid meaningful flavor that often proves far more convincing to a reader - another researcher, a policymaker, a practitioner - than pages of summarised numbers." (p1)

There has been an increase in qualitative methodology from the mid-1980s and a general increase in the complexity of research so that a mix of qualitative and quantitative methods may be used. The authors explain the jargon used and describe the book as a practical sourcebook for researchers

"Transcendental realism": social phenomena exist not only in the mind but also in the objective world and some lawful and reasonably stable relationships are to be found among them. The lawfulness comes from the regularities and sequences that link together phenomena. From these patterns we can derive constructs that underline individual and social life.

"Our tests do not use 'covering laws' or the deductive logic of classical positivism. Rather, our explanations flow from an account of how differing structures produced the events we observed. We aim to account for events rather than simply to document their sequence ... to provide a causal description of the forces at work." (p4)

The second chapter, *Focusing, Bounding the Collection of Data: the Substantive Start* was reassuring:

"Study design decisions can, in a real sense, be seen as analytic - a sort of anticipatory data reduction - because they constrain later analysis by ruling out certain variables and relationships and attending to others. Design decisions also persist and support later analysis; they prefigure your analytic moves..." (p16)

The authors give guidelines with regard to designing the framework for research, time

allocation, formatting questions, defining the boundaries, sampling etc and move on through the various stages of analysis, display and interpretation of data and verification of conclusions.

Ethical issues involved in research analysis are tackled in Chapter 11. Having raised several specific issues (worthiness of project; competence boundaries; informed consent; benefits, costs and reciprocity; harm and risk; honesty and trust; privacy confidentiality and anonymity; intervention and advocacy; research integrity and quality; ownership of data and conclusions; use and misuse of results; conflicts, dilemmas and trade-offs) the authors give a useful checklist to the would-be researcher:

- *Awareness* - consider how your general ethical position could be viewed
- *Anticipation* - draw up a checklist of possible problems
- *Preliminary agreements* - draft a contract outlining commitments and responsibilities
- *Documentation and reflection* - memo/team scrutiny
- *Third parties* - objective input
- *Regular checking and renegotiation*

Their concluding remarks (Chapter 13) give a final summary of their advice:

- Think display
- Be open to invention
- Expect iteration
- Seek formalization and distrust it
- Entertain mixed models
- Stay self-aware
- Share methodological learnings

This is a very positive and accessible book and its contents seemed particularly relevant to research involving the collection and interpretation of high levels of anecdotal evidence from those involved in (or excluded from) various education-industry links programmes which may in turn have different formats, timescales, content and objectives.

Robinson, V. (1993) *Problem-Based Methodology: Research for the Improvement of Practice*

“Given the plethora of new approaches to social and education research, I need to be clear about precisely what is and is not being claimed for Problem-Based Methodology. First, PBM is appropriate when researchers intend their work to contribute to the improvement of problems of practice. Since these are not the only purposes of education research, I am not claiming that PBM is always the appropriate methodology choice. A knowledge of PBM, however, should help practitioners, researchers and those who fund them to understand why much research had disappointing practical results and what is required given that one does wish to make a practical contribution. The choice between PBM and other approaches is neither a choice between theory and practice, nor a choice between rigour and relevance. Research on problems of practice and on problems that arise within academic disciplines both make heavy theoretical and empirical demands ... it means being prepared to move back and forth between academic theory and theories of action in a mutually educative dialogue about the implications of each for the resolution of the selected problem.

“Second, I do not claim that PBM is a paradigm, both because there is considerable doubt about the validity of said distinctions and because features of each so-called paradigm are to be found within it. Those readers whose methodology reference points and inspiration are defined by paradigm membership will, I hope, be challenged by this book to think across those boundaries and to evaluate their current research practice, not in terms of its adherence to paradigm characteristics, but in terms of its degree of inclusion of those features of inquiry which enhance their chances of making a contribution to the resolution of educational problems.”

(Preface pp ix-x)

The author is based at the University of Auckland and the instances cited where her theories have been applied have taken place in New Zealand. The book takes examples of real educational problems and practices and provides edited accounts of how they were identified and how the methodology was introduced.

In considering “Taking Problems and Practitioners Seriously”, the author states that “*a methodology ought to reflect, rather than be indifferent to, whatever knowledge we have about the subject of its enquiry.*” (p23) She writes of “espoused theories” which she defines as theories of action inferred from how people say they behave or would behave and “theories-in-use” which are inferred from actual behaviour (p29). In “Defending and Developing Problem-Based Methodology” there is a model of Guiding Values leading to Key Strategies and hence to Consequences and the process of Critical Dialogue is described.

Part II of the book is titled “Using PBM”. In analysing educational problems, case studies of Western College’s professional development programme and Northern Grammar’s attempt to establish democratic leadership are presented in the framework of independently determining the existence of a problem; examining constraints and strategies imposed. Using this mode, it was found that the professional development programme at Western College failed because it was “*designed to foster participation and support rather than to critically examine existing and alternative teaching and administrative practices.*” (p93) - a cautionary tale to consider when setting up and evaluating education-industry links programmes!

Chapter 7 considers the issues raised by intervening in educational problems through two case studies. “*The broad question I am pursuing is ‘how does one help people to change their theories of action when those theories are implicated in educational problems?’*” (p135)

“*...Problem-Based Methodology requires that educational problems be understood as intended or unintended consequences of prior problem-solving efforts ... taking practice seriously means accepting its requirements for normative theorising ... PBM involves relevant practitioners in a dialogical process that is simultaneously critical and collaborative.*” (p256)

In considering obstacles to progress with PBM, she writes:

“*...Research-driven educational improvement requires intensive face-to-face contact between researchers and practitioners. Such an expensive and time-consuming process could be a severe constraint on the influence of PBM*” (p261)

This was indeed a controversial issue in establishing pilot courses, with UI staff based

in the London Office very concerned about the mounting costs of personal visits to the centres involved. This could be overcome to some extent by using critical dialogue as described in Chapter 3.

This book was expected to be highly influential in the early development of this research project. The model of regarding a wish (in this case for students with special needs to have access to education-industry links programmes with the same opportunities and outcomes as their mainstream peers) being regarded as a problem to be defined, so that strategies for its remedy can be formulated with critical dialogue taking place between the various agencies involved, would seem highly apt. For example, it could be applied in the modification of materials, establishment of discrete pilot courses and training session leaders. It is important that all participants (students, tutors, links programme organisers and presenters) are seen to have a voice in the process and that their ongoing experiences are catalogued, challenged and acted upon in the search for resolution.

Denzin, N.K. (1989) *Interpretive Biography*²

This book deals with the ways in which biographical texts are written, read and interpreted, with a focus on the construction of the biographical information. From being a mainstay of sociological investigation in the early part of the century, it fell out of favour as more 'scientific', statistical methods gained favour. It began to regain acceptance in the mid-1970s and recent years have seen '*a resurgence of interest in interpretive approaches to the study of culture, biography and human group life.*' *Central to this view has been the argument that societies, cultures and the expressions of human experience can be read as social texts, that is as structures of representation that require symbolic statement... These texts, whether oral or written, have taken on a problematic status in the interpretive project. Questions have emerged concerning how texts are authored, read, and interpreted... The central assumption of the biographical method..is now open to question. A life is a social text, a fictional, narrative production. The method of its production is primal. It is what is produced about it. Form is content.*' (p9)

He refers to this issue as *the metaphysics of presence*. Quoting several examples from famous autobiographies and biographies, Denzin identifies nine conventions in the structure

² *Interpretive biography is defined as: Creating literary, narrative, accounts and representations of lived experiences. Telling and inscribing stories.*

of how lives are written about and which define the biographical method as a distinct approach to the study of human experience:

- *the existence of others*
- *the influence and importance of gender and class*
- *family beginnings*
- *starting points*
- *known and knowing authors and observers*
- *objective life markers*
- *real persons with real lives*
- *turning-point experiences*
- *truthful statements distinguished from fictions*

An auto/biographical account is a subjective interpretation of events presented using these conventions. It is the job of the researcher to relate meaningful biographically meaningful experiences to wider society and institutions. The more objective scientific methods (involving validity, generalizability and so on) have to be set aside in favour of a concern for meaning and interpretation of the accounts presented by the people undergoing the experiences being investigated. The second chapter is dedicated to the clarification of terms employed in the biographical method, making distinctions between terms which might otherwise be regarded as synonyms.

In providing interpretive guidelines, the author criticises the classic, objective, natural history approaches because of their logocentrism and insistence on finding order, rationality and reason in lives and ignoring the problems raised by the processes occurring between experience and expression.

Objective hermeneutics extracts sociologically relevant information from a biographical account and compares it to a motivational structure based on a ‘typical’ course of life and hypothetical motivations. The differences between the account and the model are used as the basis for a structure of the individual case. It provides an attempt to develop a qualitative counterpart to the usual criteria used by quantitative research. Biographical information is used to answer established sociological questions such as the effects of unemployment. Denzin describes the strategies and formats of the interpretive researchers, highlighting the relationship and collaboration between the researcher and their subject

(including group storytelling) and the problems of biographical illusion and biographical coherence.

A working model of the approach is provided in the chapter “Selves, Stories, and Experiences”. Stressing that “*only the representations of experience can ever be captured*” (p69), Denzin sets out to show how the traces and evidences of problematic experience that are given in personal accounts can be read. The turning point life experiences (“epiphanies”) are discussed and interpreted, demonstrating that:

- stories come in multiple versions without clear endings or beginnings
- stories are grounded in a group’s culture where criteria of truthfulness are established
- the stories told are never the same as the stories heard
- stories are shaped by larger ideological forces

Auto/biographies are never concluded because new information is constantly emerging: previous accounts are elaborated, corrected or challenged and re-presented. The stories move away from their originator towards the cultural group in which they are told and which shapes their content and delivery. This book assumed greater relevance and interest upon a second reading and its observations on the relationship between storyteller and interpreter were instrumental in structuring the way accounts were elicited from students, tutors and others, and subsequently used to report the case studies.

Trowler, P. (1998) *Education Policy: a policy sociology approach*

The timing of this publication was interesting since it was written when a new Labour (and New Labour) government - trumpeting its political priority to be “education, education, education” - had recently taken control after power had been held by the Conservatives for 18 years. It compares the ideological and practical issues concerning educational policy.

Chapter 6 (*Education Research and Educational Policy*) was of particular interest with its comparison of two models of the relationship between research and policy formation: the engineering model and the enlightenment model, with examples and critical examination of both.

“The engineering model adopts a scientific standpoint and a belief that proper, rigorous educational research can give policy makers hard data and results on which to base their policy decisions. It also implies that it is possible to formulate a rational, top-down, prescription for action on the basis of these decisions. It is linked, in other words, to the managerial approach to policy implementation.” (p113)

“The aim of [the enlightenment model] is to illuminate educational issues, giving policy makers a good grounding in the context within which they seek to make policy, including well formulated theories and concepts which can make it more explicable to them. There is no attempt to deliver the ‘truth’ because that is seen as a fundamentally problematic concept. However it is important that policy makers should be aware of the different versions of the truth that are relevant in the policy field they are considering, because these have important implications for policy outcomes. In this sense, the enlightenment model is closely allied to the phenomenological perspective on the implementation of change... A variety of types of research fit under this heading, including ethnographic and evaluation work” (p119)

The examples and discussion of the models helped establish a realistic goal for this research - to use evidence from case studies to describe current practice and suggest future developments applicable in a variety of contexts. The project clearly fell into the ‘enlightenment model’ which offered comforting reassurance when issues of ethics and validity were being considered.

Context:

Reeves, F. et al (1993) *Community Need and Further Education*

The book describes the innovative work of Bilston Community College in the Midlands. Although a study of one specific establishment, it raises issues which can be assumed to be relevant to all institutions providing post-16 education.

“...further education colleges cannot simply be seen or treated as large

schools. They are complex organisations providing a mixed adult and 16-19 year-old student population, some two million in number nationally, with a most diverse curriculum drawn from many different traditions, including general, vocational, and adult education, as well as industrial training..."

"Client groups consist not only of the actual or potential students, but of business, industry, training agencies, and the Training and Enterprise Councils." (p1)

The College has an open access, equal opportunities policy and monitoring shows that 1,400 students (8%) declared some form of disability on their application form and 1,000 students on part-time courses have special educational needs.

"It is estimated that more than 6.2 million, or 14.2%, of the adult population in the United Kingdom are disabled: a figure which is increasing as medical technology keeps more disabled people alive and the population grows older. Nationally, of the 2.6 million disabled people between the ages of 16 and 65, there are approximately 1.27 million who are economically active ... A majority of the 360,000 disabled young people under the age of 16 will enter the job market over the next 10 years. And there are already 340,000 disabled people between the ages of 14 and 30." (p19)

"In regard to training, the low job success rate of young people with disabilities completing the Youth Training Scheme is illustrated in a survey conducted by the MSC in 1987. In comparison with the national average of 45 per cent, only 22 per cent of young people with disabilities obtained a job after completing the scheme (Youth Employment and Training Resource Unit, 1988). Locally, adult training centres catering for adults with special learning difficulties are full, with waiting lists, and adults who are left without training places are turning to the college for training and education in a wide range of subjects. Within schools the number of pupils with statements of special educational need is rising. This will result eventually in greater demand being made on the college. The range of independent living initiatives developed in Wolverhampton since 1985 has also led to a demand for more educational programmes to encourage and extend the range of

independence.”

There are large numbers of disabled people, young and old, who wish to make use of the college's educational and training provision... The college must attempt to meet the vast demand for special needs provision without in any way compromising the quality of the existing personalised services. The task is to enable students with disability or special learning difficulties to study on a programme of their choice, preferably alongside other students but, if this is not feasible, to provide specialist programmes devised to meet their individual needs.” (pp20-21)

The college has strong links with the Special Education Department of the LEA and has developed links with other service providers and users. The equal opportunities policy encourages disabled people to participate in the decision making processes of the college eg staff development; non-discriminatory admissions processes. There is ongoing counselling, advice, support, adaptation of materials etc throughout the programme of study.

As an example of contemporary further education issues and practice, this book is an interesting resource. However, in relation to the topic of this research it does no more than set the scene in which education-industry links programmes may run. Other than a brief statement that “[a]s a result of its NVQ work, the college has established many new partnerships within the community. Close relationships with employers, the Wolverhampton Training and Enterprise Council and other training agencies are vital” (pp73-74), the matter is not addressed.

Coffey, D. (1992) *Schools and Work - Developments in Vocational Education*

The author supports the view that there is little pre-existing literature on this topic and that resources which do exist tend to be generated through careers education and guidance. It is important that strategies for helping people into the world of work take account of the prevailing attitudes in schools and the wider world. To this extent, the book centres on what it describes as the ‘vocational values’ of schools as demonstrated through both their formal, curriculum activities and their more implicit attitudes and conduct.

“The purpose of this approach is to identify sources and values that shaped and continue to shape the curriculum of schools, as well as those factors that failed and continue to fail to influence schools.” (p5)

The book takes an historical perspective from the early nineteenth century onwards, reaching a turning point in modern thinking around the mid-1970s when James Callaghan made a controversial speech at Ruskin College, Oxford (18th October 1976). A consultation document *Education in Schools (July 1977)* said the speech had been made against a background of strong criticism of education, based on a feeling that *“the educational system was out of touch with the fundamental need for Britain to survive economically in a highly competitive world through the efficiency of its industry and commerce.”* (*Department of Education and Science [1977] Education in Schools: A Consultative Document* London HMSO p2). The document accepted that much of the criticism was fair and in a later statement suggested that many teachers had little understanding of the world outside of the education system. It was felt that if Britain was to prosper, then its young, enterprising and talented young people had to be made aware of the importance and attractions of careers in the world of industry and commerce.

The book charts the development of the new vocationalism throughout the 1980s, including the setting up and expansion of various links between industry and education and with 1986 being designated Industry Year. In 1987, the CBI set up its Education Task Force to regulate links with schools and allocate funds for future initiatives. In many urban areas in 1988, compacts were set up whereby young people contracted to work to goals set by local employers and their schools or colleges, in return for which they were guaranteed either a job with training or training leading to a job. Margaret Thatcher had announced the establishment of the Training and Vocational Education Initiative in 1982 and it had been set up under the auspices of the Manpower Services Commission in 1983. Three years later, it was operating in 73 LEAs with 50,000 pupils having followed courses and in 1987 it was made available to all schools in the country.

The Youth Training Scheme was started in 1983; the Certificate of Pre-Vocational Education was introduced in 1985. GCSEs replaced GCE ‘O’ Levels and CSEs in 1988. The first City Technology College was established in Solihull in 1988 (Kingshurst CTC), with its capital costs met by up to 40 industrial and commercial companies. By 1991 there were 15 CTCs. 1991 saw the establishment of 82 Training and Enterprise Councils to supply local

solutions to local business needs, the same year that the DES' White Paper, *Education and Training for the 21st Century* was published. Public schools have been slower to respond to changes than those in the maintained sector.

One problem not addressed by these initiatives was that of a shortage of teachers in scientific, mathematical and technology subjects as (ironically) new graduates in these fields opted for careers in industry rather than education.

Although this book does not address the issue of students with special needs, it provides useful information about the development of some of the initiatives discussed in this work. Understanding Industry was set up in 1977 ie at the time of Callaghan's Ruskin speech and the consultative document, and it has continued to adapt and flourish over two decades whilst many of the other initiatives have simply ceased to exist or been superseded by other short-term measures.

Simkiss, P., Garner, S. and Dryden, G. (1998) *What Next? The experience of transition*

This proved to be a useful and encouraging text, being one of the few sources of reference found to address the issue of work-preparation opportunities for blind students. Taking every third person on the RNIB's Student Support Service Register who finished Post-16 courses in 1994, a sample of 172 respondents was identified to take part in the survey using telephone questionnaires and focus groups. *"The views of disabled students themselves are largely lacking in the literature on transition. There is a need for research into what actually happens in the various stages of transition."* (p20)

The research aimed to identify the level of support in careers guidance and work experience visually impaired students receive; the level of support they would like; factors influencing success in gaining employment; agencies involved in securing employment and whether individual experiences were influenced by gender, ethnicity or degree of visual impairment. A detailed account of the survey and focus groups is given, but it is the summary and discussion sections which proved most supportive in preparing to analyse the findings of this research project: *"The central concern running through both the survey and the focus groups has been the preparation and support of visually impaired students into employment, looking particularly at processes within the education system."* (p129)

This book charts the development of the Youth Training Scheme (YTS) in the 1980s. This was a national initiative bridging the divide between education and employment for unemployed and largely non-academic school leavers. Although far from popular and despite many incarnations, the Scheme contained many elements that would be regarded as good practice in vocational schemes for young people in the ensuing decade: work experience placements, development of vocationally relevant key skills (then known as core skills); work-awareness training.

Originally a response to the problem of youth unemployment, the Scheme grew out of several other initiatives (such as Work Experience on Employers' Premises - WEEPS - Youth Opportunities Programme - YOP) of varying length and quality. From a one-year programme, it was expanded in 1986 to two years and subsequently became more employer-based and employer-led with the development of nationally recognised accreditation such as NVQs (National Vocational Qualifications). Initially intended to compensate for disadvantage from discrimination or disability, changes in structure and funding led it to evolve into the accepted progression route for school leavers not wishing to attend full-time college on conventional courses and not qualified or equipped for adult employment.

"High unemployment, early legislation and pressures from the EEC Regional Fund (which partly funded YTS) ensured that YTS always had stated goals of 'equal opportunities' for all trainees. But their only formal acknowledgment was in Mode B schemes, which further subsidized 'compensatory training' for trainees who were disadvantaged or lived in high unemployment areas to enable them to compete in the labour market. Mode B schemes included 'personal and life skills' training and most trainees worked mainly in special workshops which were intended to produce and so offset their costs. Any placements were shorter and usually in a variety of work settings. Cost-cutting under YTS 2 has now replaced Mode B by fewer 'premium places' for the disadvantaged, and although 'equality of opportunity' is still a criterion for ATO recognition, enforcement is now left to the ATO's (or former managing agents) themselves." (pp11-12)

The Mode B YTS programmes contained features which addressed many of the needs experienced by students in this study: lower academic attainment upon leaving school; lack of experience of the world of work; opportunities to develop social as well as vocational skills; time to mature in a supportive setting whilst experiencing a variety of workplace settings. On the whole, the book was concerned with the impact of YTS and its political implications, but its descriptions of ideology and practice provided interesting an background to the development and structure of education-industry links programmes in the 1990s.

HART, S. (1996) *Beyond Special Needs: Enhancing Children's Learning Through Innovative Thinking*

An interesting account of the author's developing professional interest in pupils with special educational needs and the structure, methods and outcomes of her own research project. Essentially, as a remedial teacher in an inner city school, she wanted to work in a more integrated fashion with colleagues across the curriculum.

"However, this shift of emphasis was by no means unequivocally welcomed, either in my own or in other contexts. Hard-pressed subject teachers protested that they could not take on any more. The presence of a support teacher raising questions about provision for particular children could be both personally uncomfortable and professionally undermining. I found that most of the possibilities that occurred to me could not be pursued either because of time constraints or for fear that raising them would seem to be implying criticism of my colleagues' work." (preface p xii)

This certainly felt familiar when some of the centres in this study were initially approached about the possibility of setting up pilot schemes involving tutors from across the curriculum, people from industry and disruption to the normal timetable!

Because of time restraints on her original research, she decided to move into the area of in-service education.

"Now, as a result of working with experienced teachers on enquiry-based in-service courses, I started to see connections between the methodological questions posed by my study and more general debates in the

field of practitioner research. In particular, I realised that my study might be able to make a contribution to these debates, by helping to establish a clear distinction between modes of practitioner research which require knowledge of research methodology and an approach where knowledge and expertise derived from teaching might be accepted as a legitimate and sufficient resource for research.” (p123)

“I knew without a shadow of doubt that this transformation had come about simply by being in the classroom and thinking with whatever resources I could muster, and not because of any careful research design, or the influence of the new knowledge that I was acquiring about research methodology.” (p124)

This book deals with issues of subjectivity, bias and the relationship of researcher to her subject and findings in a way that encourages confidence in adopting and adapting strands from established methodological practices to develop one's own research tools to not only enable specific research to be undertaken but for the outcomes to be disseminated in ways appropriate to their audience.

BARNETT, C. (2001) *The Verdict of Peace*

Chapter 22, *Education of Industrial Defeat*, provides an interesting synopsis of the issues facing the educational system following the second world war. It was clear that education and training did not meet the needs of a modern industrial country: for example, breakthrough inventions by British scientists could not be manufactured at home because of a shortage of suitably trained engineers, managers and technicians. There was a shortage of teachers and youth leaders. Britain's traditional class-based society suppressed aspirations and, at the beginning of the war, only 1 in 865 went to university, compared with 1 in 275 in America, 1 in 480 in France and 1 in 604 in Germany. 99% of working class children left school with no qualifications or with just the School Certificate which did nothing to prepare them for the world of work. Of those entering Higher Education, most chose to study the arts rather than applied sciences. Before 1939, very few universities recognised production engineering at post-graduate level and none offered a chair in business studies. Even economics was very much a minority subject.

The second world war highlighted these shortcomings in education and training and a succession of reports proposed changes that would encourage technical subjects to be studied at HE level, including management skills. The Education Act of 1944 set out to provide appropriate education routes for all children, with parity between them, but actually just reinforced the traditional class divisions between academic and vocational education - and the Report of the Crowther Committee in 1957 found these class divisions reinforced by the optional school-leaving ages of 15, 16 and 18. By the mid-1950s little had changed and most of the recommendations for improvement had been ignored. There was a similar lack of progress in introducing HE courses in management and business studies. Arguments for compulsory post-school education, refurbishment of buildings, investment in education at all levels were made in much the same way as they are are being made today.

Although this book does not deal with the period featured in this research or directly consider the issue of education-industry links programmes, it is interesting (and alarming) to see that the issues are largely unchanged. School-leavers (despite the raising of the school leaving age to 16 and the implementation of the National Curriculum) are still regarded as unprepared for the world of work and many have a negative image of a career in 'industry'. Employers are still lamenting the basic skills levels of new recruits and vocational training for 16-19 year olds are still criticised and subject to constant review and change. This was an interesting book to read as a companion to Lee et al (1990), discussed above.

Other sources were discovered and consulted as the work progressed and have been acknowledged in the References section; several have been cited in other chapters.

CHAPTER 4: CASE STUDIES

4.1 Introduction

The following case studies describe and evaluate the establishment and running of the twelve Understanding Industry pilot courses for students with sensory impairment. Eight courses were run for hearing impaired students and four for those with sight loss.

Understanding Industry's traditional remit was to offer courses to students aged 16-19 and this was strictly adhered to in mainstream settings. For these pilot courses however, this restriction was relaxed for two reasons:

- Some students were older than 19 because their disability had necessitated them spending longer in the education system. For example, delayed language acquisition meant they needed to work at a slower pace and so took longer to complete age-appropriate courses or to progress to the next level. Others had missed considerable periods of schooling whilst receiving medical treatment and others had acquired their sensory impairment later in life rather than being born with it and so had undergone rehabilitative training.
- Some students were under 16 because the centres they were attending were very small and viable groups could not have been established without their presence

The statistics and reflections were gathered from questionnaires issued to students for completion before and after the course, to tutors to complete during the course and to session leaders for their reflections after their contribution to the course¹. In addition, there are observations made by the researcher and reported responses which were made through informal communication with those involved. All reproductions of student comments made on their questionnaires have been reproduced without 'correction' as examples of the language and literacy skills represented in the sample.

The centres are not named and students' identities have been changed: however, given the relatively small number of special schools throughout the country, it is not possible to ensure complete anonymity. As discussed in the chapter on context and methodology, all

¹ For more information on the drafting of the questionnaires and their analysis, see the chapter on Context and Methodology

parties were informed that the course would contribute to this research and none raised objections to being described or quoted. Individuals and companies have been named in acknowledgement of the time and effort they contributed to these pilot courses.

4.2Summary of the First Pilot Course for Hearing Impaired Students

TheVenue: A residential grammar school for hearing impaired children in the home counties. The school follows a natural aural philosophy, developing students' effectiveness in using their residual hearing and improving their speech with the help of specialist staff and technology. The sixth-form comprises students who have progressed from Key Stage 4 in the School and students who have transferred at 16 from mainstream and special schools throughout the United Kingdom. Around two-thirds of sixth form students progress into Higher Education. The School is non-maintained and students are funded either by their Local Education Authority or the Further Education Funding Council.

TheProgramme: The programme ran over two and a half days and was supported throughout by Teachers of the Deaf and a Technician.

<u>DATE & TIME</u>	<u>SUBJECT</u>	<u>SESSION LEADER</u>	<u>COMPANY</u>
9.6.98			
Afternoon	Introduction	Stevie Mayhook	Understanding Industry
	Industrial Visit	Alan Glanville	BT Call Centre
10.6.98			
9.00-10.30	Management	Maureen Mulligan Scott Newman	Thames Trains
11.00-12.30	Marketing	Lynn Bell	Southern Electric
1.30- 3.00	Finance	Barrimore England-Davis	Lloyds Bank plc
3.30- 5.00	Design and Development	David Foster	BT Age & Disability Unit
10.6.98			
9.00-10.30	Human Resource Management	Jo Ridley	Newbury Building Society
11.00-12.30	Production	David Handley	P C Cox Limited
1.30- 3.00	Customer Care	Julie Hughes	Sainsbury's Supermarkets
3.30- 5.00	Summary	Stevie Mayhook Alistair Ogilvy	Understanding Industry Lloyds TSB

The Students: It was decided to run a course for nine or ten first-year GNVQ Advanced Level Business students. Obviously, they would all have some degree of hearing impairment (ranging from moderate to profound) and would be assisted by individual hearing aids, radio aids, a good staff:student ratio and a new group aid system - recently developed on-site - that was considered to be a vast improvement on conventional models. Because of their area of study and the timing of the course, it was felt that these students would have some prior understanding of many of the topics and could gain directly in terms of additional input for their coursework.

Preparation: The researcher had completed one of her Teacher of the Deaf teaching practice placements at this school several years before and made a direct approach by letter to the Principal (a well-respected and much-published figure in the world of deaf education) in September 1997. After some initial difficulties, a preliminary meeting was set up with a tutor from the Business Studies Department early in December. It was a pleasant surprise to find out that she had previously worked in a mainstream school which had run Understanding Industry courses and therefore understood the basic aims and methods employed. Despite her positive attitude, she was worried that the traditional format, for several reasons, would not be suitable for hearing-impaired students and had therefore not introduced them at the school. For example, the class sizes were much smaller than those in mainstream schools, which would make the usual Briefcase activities difficult to execute; although the students were academically bright and ambitious, the format of the text book (language and layout) would make it difficult for them to use quickly and effectively; the time needed to prepare for and run the sessions would take up too much precious class time. On the other hand, the opportunity to meet 'real' business people and discuss their experiences would be invaluable.

It was decided to hold the course in a three-day conference format in the second half of the summer term when students would be approaching the end of the first year of their studies and the public examinations would be over. The outline programme was drafted to give a good mixture of subjects that would be of direct relevance to the students. Half-hour breaks between sessions were incorporated because following verbal input from strangers, whether aurally or by concentrating on lip reading, could be very tiring; the breaks would also allow them an opportunity to talk informally with the session leader or discuss salient points with their tutor. There would be at least one Teacher of the Deaf present at each session to help with communication.

After discussion about the suitability of the text book, a loose leaf folder with modified chapters and language was identified as being preferable. Only the chapters relating to the topics on the programme would be included, to make it of immediate relevance, while a copy of the standard text book would be issued to the School for teachers' use in later classes. This would be produced by Understanding Industry and issued in advance of the course so that the tutor could introduce or reinforce concepts and vocabulary before the conference.

The Session Leaders: The local UI Regional Organiser was contacted to apprise her of the situation, invite her participation and request help in identifying possible session leaders. She was able to furnish some named contacts in local companies who might be willing to help and these were used as a starting point in filling the programme. Sainsbury's Head Office had already agreed to supply somebody to run the Customer Care session and once the dates were fixed a named person was identified. Others were found by networking through contacts in other areas who were able to identify local colleagues, counterparts or even competitors.

The Training Workshop: A twilight training session was held for the session leaders a week before the course was to run. It was felt that this would enable them to receive and retain information that was crucial to their presentation and, if necessary, to modify their plans. If they had any queries, there would be time for them to contact an appropriate person at the school. It was well attended and all the session leaders said it had removed a lot of their preconceptions and misgivings. As well as information on the causes and effects of hearing impairment and the resources available from UI, the session included a tour of the school (and a chance to see a variety of activities in progress) and light refreshments.

The Conference: The students were a little wary to begin with, but with a very hands-on industrial visit starting the proceedings, enthusiasm quickly grew. All the session leaders were well prepared and had obviously taken on board the issues raised during the workshop, taking time to introduce themselves and their work, providing handouts and practical activities. There were some technical problems with the new group aid system, but these were dealt with by tutors 'scribing' difficult or unfamiliar vocabulary on the board, the use of an overhead projector for 'live' notes and opportunities for questions and answers to confirm students' understanding. The summary session involved a competitive team-based activity

from UI's Briefcase collection² that drew together the various strands of the conference. Every student received a certificate of attendance which provided evidence for the key skills assessed in their coursework.

Feedback and Implications: Verbal feedback throughout the event was very positive, especially after the visit to BT where students and staff had an opportunity to explore the technological advances that could enhance workplace practices in the near future. Nine pre- and ten post-course questionnaires were returned (four boys and six girls). All the students said they would recommend a similar programme to others. Of the nine who returned both their questionnaires, three originally had a positive impression of industry and six were neutral, but by the end of the course this had changed to three feeling very positive and six positive. Similarly, their understanding of industry was originally five good and four average and this changed to three very good, five good and one average. Interestingly, three had originally been considering running their own business while six 'didn't know', but three days later this changed to one 'yes' and eight 'don't knows': it was apparently more daunting than they originally thought!

In general, the main benefit was felt to be the opportunity to learn about people's different backgrounds and how they obtained their current positions. Others felt they had gained a lot from hearing people talk about exactly what they did at work. The most popular sessions were those which included chances to work in small groups and give presentations. The most common criticism was that there wasn't enough help with vocabulary - the students wanted more ohp transparencies or live 'scribing' when new ideas were being introduced or when tasks were being set.

Students' evaluative comments included:

- "After 2 and a half days of learning different areas of the business, it has become more clear what each one entails." (Jill, aged 18)
- "[I think the best/most useful features of the course were] BT, they showed us the videophone, I really liked it and it told me the lastest for Deaf People" (Esther, aged 17)
- "[My opinion of industry and commerce is now very positive because] I realised that I can work in the industry & commerce even with my deafness." (Basil, aged 17)

² See Appendix I

Session leaders were very positive about the event and all commented on what they would change about their own presentations if they were asked to take part in the future. For example, one said he would ask students to wear their headsets (with the group aid) for the first part of his session to focus their attention on key vocabulary and issues, and another said she would prepare more of the information in advance.

The staff responses were collated and summarised by a tutor who had played a major role in the running of the event:

“... We all agree that the course was very good and has really helped our students, we particularly liked the course folder and the final session. One of the main advantages of running the course was making contact with local businesses and we intend to strengthen these links with follow-up visits or enquiries. We would be very interested in running a similar course again and I will be recommending it to the Head of Business Studies ...”

“Obviously each member of staff has their own opinion about the quality of each session, and some of the session leaders were better prepared and more aware of the needs of our students than others, so some of our constructive comments refer to a specific session rather than the course in general ... We also feel that we could have better prepared our students for the course and ensured that they all had working headphones for the group aid system ...”

The local Regional Organiser had been able to attend most of the sessions and felt confident in running a future course at the venue if there was sufficient interest and funding became available.

4.3Summary of the Second Pilot Course for Hearing Impaired Students

The Venue: A residential college for hearing-impaired students aged 16+ in South Yorkshire, offering a range of vocational and academic courses on site or support for those wishing to attend the local mainstream college. Total Communication (signed language used simultaneously with spoken English) is employed to accommodate different preferences and needs. Students come from mainstream and special schools all over the United Kingdom, funded by their Local Education Authorities, the FEFC or Training for Work and attend for 1-3 years depending on their subject, course level and progression routes; some go on to study in Higher Education, whilst the majority seek employment. A large range of vocational training is offered on-site by specialist teachers in appropriately equipped workshops, some of them open to the public (hairdressing and catering for example). Work experience programmes are organised and monitored in the students' home areas during the summer vacation.

The Programme: The programme ran over two and a half days and was supported throughout by teachers from the Business Studies Department and Communicators.

<u>DATE & TIME</u>	<u>SUBJECT</u>	<u>SESSION LEADER</u>	<u>COMPANY</u>
22.6.98			
Afternoon	Introduction	Stevie Mayhook	Understanding Industry
	Visit	David Parker	Sainsbury's Stores
23.6.98			
9.00-10.30	Finance	John Wozniak	TSB Business Banking
11.00-12.30	Small Businesses	Peter Smith	PYBT (S Yorks Area)
1.30- 3.00	Marketing	Tracey Midgely	Doncaster Free Press
3.30- 5.00	Customer Care	David Parker	Sainsbury's Supermarkets
24.6.98			
9.00-10.30	Design/Development	Lindsay Witham	BT Age & Disability Unit
11.00-12.30	Management	Dave Horton	BT
1.30- 3.00	Human Resource Management	Harry Marsden	GNER
3.30- 5.00	Summary	Stevie Mayhook	Understanding Industry

The long breaks between sessions were incorporated because many of the students would be relying heavily on lip reading and following a signed translation of the presentation, which requires a great deal of concentration and can therefore be very tiring. The breaks would also allow time to talk informally with the session leader or discuss salient points with their tutor.

The Students: Originally it was agreed to run the course for 12 students, but in fact 15 participated. Between them they were studying a combination of GNVQ Foundation Level Business, NVQ Business and GCSE subjects. One student was studying Electronics and another Industrial Design: these were both invited to take part as they were previously known to the researcher.

Preparation: The College was initially keen, but suffered logistical problems in getting negotiations under way. The Principal had been contacted in August 1997 and was very enthusiastic; however, he was admitted to hospital with a serious heart condition and communication ceased. Further enquiries identified a suitable contact and the first meeting took place with her in October; however, it was then decided that the Employment Liaison Officer would be a more appropriate contact person and after a further meeting it was decided that the Head of Business Studies (previously known to the researcher through NATED activities) should also be involved in the planning stages. Neither she nor the college had any previous experience of working with Understanding Industry, but she was very enthusiastic about the idea of running a pilot course.

The text book (as anticipated) gave cause for concern as both the language level and the presentation (large bodies of text, close-printed) were felt to be unsuitable for students with low reading ages. A loose leaf folder with the relevant chapters appropriately modified was identified as being preferable to the text book. This would be produced and issued by Understanding Industry in advance of the course so that the tutor could introduce or reinforce concepts and vocabulary before the conference. Looking at the questionnaires that would be used to evaluate the programme also raised issues about their accessibility to the students. Although the questions related to the students' own experiences, it was felt that the vocabulary and concepts embedded in them would be difficult for the students to interpret and respond to effectively.

It seemed a good idea to draw students from a range of vocational areas, but this

would present timetabling problems; it was therefore decided to run the pilot over three days in the summer term, beginning with an industrial visit to 'set the scene'. Because many of the students were on service-oriented vocational courses (motor vehicle maintenance, hairdressing and catering, for example), Customer Care was felt to be an important area for them to address as many of them had concerns about their ability to deal with the public.

Understanding Industry's Regional Organiser for Derbyshire and Doncaster was contacted to apprise him of the situation, invite his participation and request help in identifying possible Session Leaders. He was not able to furnish named contacts, as he ran very few courses in that area, but he identified some local companies who might be willing to help.

The Session Leaders: Appropriate and willing session leaders were identified and approached by various means, such as contacting head offices of large companies and asking for their regional contacts; networking through other UI personnel; networking through existing UI session leaders or cold canvassing with the aid of Yellow Pages. All the session leaders were sent a copy of the UI text book, session leader guidelines and sample Briefcase exercises for their topic.

The Training Session: The session leaders were all invited to attend a training session to be held at the College on 20th May to raise awareness of issues relating to communication with deaf students and running UI sessions. There was a good response, with only one person unable to attend. In addition to the session leaders, the Employment Liaison Officer, English and Communications staff, the researcher and the local UI Regional Organiser also came along. It was led by members of staff from the English and Communications Departments and included a tour of the site to see classes in progress in some of the teaching areas and lunch was provided in the training restaurant where Catering students learn and work. The more formal part of the day took place in the Learning for Life suite, where the conference would be held. To underline the difficulties faced by students, there was a quiz, an opportunity to listen to part of the presentation though hearing aids (using stetoclips) and excerpts from a video³. Finally, there were examples of students' literacy skills and an explanation of why there were often 'errors' or unconventional structures in spelling or grammar. A summary sheet of communication issues was given to each session leader for future reference. There was then a brief synopsis of UI's work and a discussion of the implications of the previous

³ 'Listening Through Frosted Glass'

talk when planning sessions for this event. The modified text book was shown and there was an opportunity to discuss ideas for activities.

The general consensus was that the training session was useful as many of the implications of deafness had not been fully appreciated beforehand. It also helped to remove some of the ‘mystique’ surrounding communication with deaf people. Most of those present said they had revised their initial plans for their sessions as a result of the day’s input - and there was a great deal of genuine sympathy expressed for the person who was unable to attend!

The UI text book was modified to make the language and content more readily accessible to hearing-impaired students. Each section was designed to be free-standing by being printed on different coloured paper, having its own recurring logo and a glossary of terms to help students become familiar with the vocabulary they would encounter in that section and during the appropriate session. Copies of the relevant chapters (and ring binders for storage) were sent to the College in advance but, unfortunately, because of the number of ‘contacts’ involved, they had not reached the appropriate person until the Friday preceding the start of the conference. The students had an opportunity to look at them and work through some of the vocabulary pages with a tutor on the Monday morning.

The Students’ Questionnaires also needed to have their language/grammar modified to become more accessible to these students.

The Conference encountered a couple of problems when two of the session leaders had to withdraw at short notice: one managed to send a replacement and the other supplied the equipment and the researcher led the session (having seen it delivered during the first pilot course), assisted by the previous session leader who fortunately worked for the same company.

The visit proved a great success and generated a very positive attitude towards the next two days (helped by each student and tutor receiving a £5 gift voucher before they left the store). Having initially shown some reluctance to ‘go to a supermarket’ the students’ enthusiasm grew as they were taken behind the scenes to visit the offices, the freezer, the secure alcohol store and to have the work of the in-store bakery explained and demonstrated. The staff in all departments made the students very welcome and they were asked a great

many questions about job opportunities, staff relations, competition from other supermarket chains and security.

The students were relaxed and enthusiastic about the rest of the course, joining in happily with practical activities and asking questions. Radio aids and group aids were not used, but each session was supported by at least one Teacher of the Deaf and a Communicator. The signed ‘translations’ were continuous and this proved both strange and amusing: for example, when a Session Leader made a joke, got no response and moved on to their next point and then found the students laughing - they had not taken into account the time needed for the Communicator to translate the punch line!

The Summary session was reorganised to accommodate a variety of end of term activities. The first part took place in a space created between the end of lunch and the beginning of the Human Resource Management session. To draw together the various sessions, the students were organised into three groups to complete a Briefcase activity⁴. The briefing sheets, sweets and stationery items needed had been prepared in advance and the main learning points of the exercise were presented on a prepared ohp transparency to reinforce the relevance of the exercise. Post-course questionnaires were distributed, completed and collected after the Human Resource session and then the certificates were presented before everyone departed to the departmental barbecue and quiz. Although the original schedule had been disrupted, the level of enthusiasm and involvement remained high.

Feedback and Implications: The programme generally ran very smoothly, with only the summary session having to be slightly reorganised. The local UI Regional Organiser attended on Tuesday and Wednesday and was thus able to get to know several of the session leaders and to understand the needs that future courses at this venue might generate. All the Session Leaders made time to talk to the students and tutors over coffee. They all made positive comments about the interest shown and effort made by the students and said they would be willing to be involved with the College in future.

The tutors were impressed by the range of Session Leaders and the efforts they made to communicate appropriately with the students. The Head of Business said the conference had been better than she had expected (probably because she had not been involved in the initial meeting and had received much of the information via a colleague) and she would like to book some kind of UI programme in the future, preferably earlier in the academic year so that

⁴ See Appendix I

information and experiences gained could be incorporated immediately into students' portfolios of work.

Fourteen students completed pre- and post-course questionnaires. At the start of the course, one had a very positive impression of industry and commerce; two were positive, nine neutral and two very negative. In their subsequent responses, this shifted to one very positive, four positive and nine neutral. Those considering a career in industry or commerce rose from three to six, with a corresponding decline in 'don't knows' from eleven to eight.

Student comments included:

- “[My knowledge and understanding of business is now good because] I am have a good for me and more learn us. I have interesting.” (Wayne, aged 18)
- “It will help me to run a business if I want to I have more knowledge about business.” (Jeremy, aged 18)
- “It was fun. you got involved and games were introduced so we never got bored... [The personal benefits I have gained from the course are] more confident and understand better.” (Leah, aged 18)
- “I now have a clear idea of what the industry is about, as I had no idea before...I now realise how hard it is going to be to get to the top. You have really understand what is going to be expected...” (Denise, aged 19)

In general, the main benefit was felt to be the opportunity to learn about the different roles performed by people in industry; even those on Business Studies courses did not originally feel they really understood what business was about, but the course seemed to have helped this. One student said that what she gained was an understanding of the term 'breakeven'! Criticisms or suggestions for improvements were few.

There was no discernible difference between the effectiveness of session leaders who had attended the training session and those who had not. This is probably because the latter had received all the information presented. Also, the presence of a Communicator helped with unfamiliar vocabulary and any lack of visual support. Not surprisingly, the most popular sessions were those with the most student participation - and the generous 'freebies' were also greatly appreciated. Typical comments from session leaders included:

“My thanks for your help and advice regarding the (UI Pilot Course)

... Despite my initial reservations, I certainly enjoyed the experience, largely due to the attentiveness and the participation of the students involved."
(John Wozniak, TSB)

"I must admit that I was a bit apprehensive at first, but I thoroughly enjoyed it. If I can be of any assistance in future please do not hesitate to give me a call." (Harry Marsden, GNER)

"Once I had actually started my session I thoroughly enjoyed it, I just hope the students did! I found attending the training workshop invaluable and also extremely interesting." (Peter Smith, The Prince's Trust)

The tutors' responses were summarised by the Head of Business Studies:

"...the students enjoyed the 3 days and benefited from the various sessions which covered all the important areas linked to their coursework. I feel that the course has given them a practical insight into the business world and will have given them food for thought for their future career plans.

"The session leaders provided good variety and kept the students motivation levels high by their various presentation methods. It was good to know that some of them felt that deafness was not a barrier to their employing new recruits to their workforce...I feel that it was well put together and was a successful end to the students academic year, consolidating their learning and providing interest and practical experience in their area of study".

The modified, modularised text book was felt to be useful both as a preparation for the course (if received in time) and as a revision tool. The worksheets and leaflets distributed in each session were immediately filed with the appropriate chapter, to be referred to when the students returned to study for their Intermediate GNVQ. The decision that only the chapters relating to the course were supplied was felt to be good as students were not confused or put off by irrelevant information, while the tutor had a copy of the original publication which could be used, developed or modified to meet future needs.

4.4Summary of the Third Pilot Course for Hearing Impaired Students

TheVenue: A facility for Deaf and Hard of Hearing Students in Continuing and Further Education in London. Assessment and support are offered to hearing-impaired students attending local mainstream colleges. Pupils leaving the local school for deaf children can choose to follow a Foundation course in Continuing Education on site. The programme includes teaching in small groups in their own building with designated staff; work experience placements and vocational study links with a local college. Students study core subjects to gain RSA, GCSE or AEB qualifications. They have opportunities for speech and language therapy and have privileges to distinguish them from the school pupils (no uniform, independent study time, a common room and kitchen).

The Centre uses a Total Communication approach (manual or signed language is used simultaneously with natural spoken English). The students travel independently to the centre from across Greater London, so they have diverse backgrounds and for many English (spoken, written or signed) is not the first language used at home.

TheProgramme: The programme ran on a ‘one session per week’ basis over half a term. Each session was supported by a Teacher of the Deaf and a signing Interpreter (funded by the SRB).

<u>DATE/TIME</u>	<u>SUBJECT</u>	<u>SESSION LEADER</u>	<u>COMPANY</u>
23.2.99			
2.00-4.30pm	Introduction Visit	Stevie Mayhook Cathy Barrie	Understanding Industry Connex South Central
2.3.99			
2.30-4.30pm	Marketing & Sales	Mike Lewis	Currys
9.3.99			
2.30-4.30pm	Design & Development	Noreen Grennan	National Grid Company
16.3.99			
2.30-4.30pm	Customer Care	Andy Cook	Sainsbury’s Supermarkets
23.3.99			
2.30-4.30pm	Personnel Summary	Brendan Ryan Stevie Mayhook	Wandsworth Council Understanding Industry

The Students: Seven Continuing Education students were chosen by their tutor to take part in the course. There were six boys and one girl; one was aged 16, one was 18 and the others were all 17. They had a variety of vocational interests and were all studying for NVQs and

other qualifications. None of them used spoken English as their preferred mode of communication.

Preparation: The Centre, which had no previous experience or knowledge of UI's activities, was contacted and visited earlier in the academic year. The modified text book and questionnaires that had been used in the previous pilot schemes were shown to the tutor, and the earlier programmes were discussed as a potential framework. It was decided that because of the varied nature of the continuing Education programme, with its off-site commitments, it would be best to run the course as a series of discrete sessions over several weeks. The students would find it less confusing than trying to absorb information and varied presentations in a conference format and there would be more time for tutors to prepare and de-brief them between the sessions. The level of language used in the modified book and questionnaires was still felt to be beyond the abilities of the students who would be participating, although a great deal of support would be given.

An outline programme was negotiated and the tutor was kept informed by telephone and fax as progress was made.

The Session Leaders: Willing contributors were identified and contacted by various means. Some were nominated by their Head Office personnel because they had expressed an interest in education links activities; some were identified after networking through session leaders in other regions and others were cold canvassed using the local press and Yellow Pages for inspiration. All the session leaders were sent a copy of the UI text book, session leader guidelines and sample Briefcase exercises for their topic.

The Training Session: All the session leaders were invited to attend a workshop on the afternoon of 5th February. Unfortunately, only two Session Leaders were able to attend: one was overseas, one was only identified on the day the training session was held, and one sent apologies because she had to provide cover for an absent colleague at short notice. The two who attended were enthusiastic, asked pertinent questions and discussed ideas for their sessions. UI's local regional organiser was also unable to attend due to prior commitments.

Those who attended were given a tour of the school and the 16 Plus Centre, where the sessions would take place. To underline the difficulties faced by students, there were excerpts from the video, 'Listening Through Frosted Glass', examples of students' literacy

skills and an explanation of why there were often unconventional structures used in their spelling or grammar. A summary sheet of communication issues was given to each Session Leader for future reference. The researcher then gave a brief synopsis of UI's work and discussed the implications of the previous talk when planning sessions for this event. The modified text book was shown and there was an opportunity to discuss suitable activities. It was felt that the training session was useful as many of the implications of deafness had not been fully appreciated beforehand and initial plans would be revised. There was a great deal of concern for those who had been unable to attend the workshop, so they were contacted individually and sent a summary of the workshop and all the handouts, with an invitation to contact the Centre with any queries.

The UI Text Book: Having been modified in preparation for the first two pilot courses, further revisions were made to keep it in line with the mainstream text which had been updated during the summer of 1998. As before, each section was designed to be free-standing by being printed on different coloured paper, having its own recurring logo and a glossary of terms to help students become familiar with the vocabulary they would encounter in that section and during the appropriate session. Copies of the relevant chapters and ringbinders were sent in advance but had not arrived in time to be distributed to the students before the course started, so they did not have an opportunity to prepare for the topics or learn unfamiliar vocabulary before the introductory session.

The Students' Questionnaires had also been modified for previous pilot courses and were ready for use. However, the students found even the modified version of the pre-course questionnaires difficult to understand and required a great deal of help to complete them, so both these and the post-course questionnaires were modified further while the course was in progress⁵. In the summary session, the students found the evaluation process much easier, only requiring help with spellings and structure rather than the concepts.

The Course: The main points for the Introduction were summarised on ohp transparencies which had been prepared in advance. This session was intended to be brief to allow for a quick departure for the visit to Victoria Station but, despite being in the modified form, the questionnaires presented many difficulties and this section took longer than anticipated. The researcher, Teacher of the Deaf and Interpreter helped the students complete the questionnaires, but some of the vocabulary was unfamiliar and suitable interpretations needed

⁵ See discussion in the chapter on Context and Methodology

to be negotiated; this in turn produced some answers which were known to be inappropriate or inaccurate (for example, “industry and commerce” became the “world of work”, “work experience” or “work” which some students then believed to refer to coursework they completed in the Centre).

The students found the visit fascinating and asked questions ranging from whether there were any deaf staff employed at the station through to what would happen if they left a baby on a train! They investigated facilities available on the concourse and platforms and went behind the scenes to learn how reservations are made, how the progress of individual trains can be monitored and how information is given to the public. Of particular interest (and concern) was the response to a question about services for deaf customers: at first they were told there was no text phone facility (reinforced by a brief call to National Rail Enquiries) but then a member of staff found a number given in the timetables (staff seemed to be unaware of this service). They were also told that a T-loop system was in place at the booking office windows (to assist hearing-aid users) but had been switched off because it was incompatible with the public address system! Although spoken communication was difficult, a fluent dialogue took place with simultaneous signing/speaking translation and the students were confident and persistent in their questioning.

The Marketing session started with the students identifying carrier bags from the Dixons Group stores and saying what they sold. They then worked in groups to devise in-store promotions for personal organisers; they came up with some good ideas, drawing on the previous discussion and their own experience as customers. As a bonus, they were allowed to keep the organisers, which made this a particularly popular session!.

The Design and Development session was also well received. The activity was one the company had prepared for UI's Briefcase but, having read the information on communication issues, the session leader adapted it to make it more accessible. They settled well to the task, which involved communication and numeracy skills, and required them to explain their decisions.

The Customer Care session was led by two members of staff from the local Sainsbury's branch who had been asked to step in at short notice. They were well prepared in terms of their content and visual aids for the session but had some difficulty in explaining the company's philosophy of the lifelong value of a customer and generating delight rather

than satisfaction. Aware that some of the session had gone over the students' heads, the session leaders offered to arrange a behind-the-scenes visit to the store in the near future.

The Personnel session kept the students very busy, discussing how employers decide what kind of person they need and why applicants might be selected for jobs. They thought about the relationship between job descriptions and people specifications and worked in teams to draft their own 'specs'. Mock interviews were then held with the students acting as either as candidates or interviewers, illustrating the relevance of certain questions and the attitudes that might influence decisions. A general summation followed, with the completion of the new post-course questionnaires and presentation of certificates.

Feedback and Implications: The programme ran reasonably well but undoubtedly suffered from the poor turn-out at the training workshop and last minute changes in session leaders. The local UI regional organiser did not attend any of the sessions, which meant further support would be needed to run a subsequent course at the Centre. All the sessions over-ran their scheduled finishing time, with students continuing to ask questions and refer to the activities, which demonstrated the real commitment and interest of all those involved. Every session leader made positive comments about the enthusiasm of the students and said they would be willing to be involved with the Centre in various ways in the future.

The same Interpreter was present at every session. This was definitely an advantage as the style of interpretation was consistent and she became familiar with the format and aims of the sessions. A researcher from the body granting the SRB funding for the Interpreter asked for more information about the course (she had attended the Design and Development session) for their evaluation process and wrote:

"The staff were extremely enthusiastic about the impact of your project, especially the fact that the employers were willing to offer work experience in the future. They also felt that the students had greatly improved their team working skills."

The tutor was impressed by the range of Session Leaders and the efforts they made to communicate appropriately with the students, but felt that it should really have been considered a priority to have as many as possible attend the training workshop to increase the effectiveness of their communication.

All seven students returned their questionnaires. The summary made interesting reading as it appeared that as a result of the course there had been a distinct upward shift in their knowledge and understanding of business and a corresponding downturn in their impression of it. This unusual situation was probably due to the re-drafting of the second set of questionnaires and the students understanding the later questions better! The questions requiring a 1-5 grading system were completed appropriately and consistently, but the written, qualitative responses were difficult to interpret. In general, the main benefit was felt to be the opportunity to learn about the different roles performed by people in industry. Criticisms or suggestions for improvements were few and it was universally agreed that other students should be offered the chance to participate in the future. Not surprisingly, the most popular sessions were those with the most student participation.

The modified, modularised text book was not felt to be a total success: students did not have time to consult it before the course started and it was difficult for them to access independently. The students treated them with respect and added information collected during the course, but they were clearly not comfortable about using them as a resource. This might suggest that earlier distribution (perhaps by several weeks) would be useful.

Although funding was available to run another course at this centre the following year, there were not enough students to form a viable group. However, the tutor was keen for the contact with UI to be maintained and for similar events to be organised in the future. She intended to maintain relationships with the session leaders for other activities such as industrial visits and work experience placements.

4.5Summary of the Fourth Pilot Course for Hearing Impaired Students

TheVenue: A non-maintained Catholic school for hearing-impaired pupils aged 3-19 years in northern England. Being a residential centre, students come from various locations and have diverse backgrounds. Although essentially a Catholic School, it has pupils and staff of other denominations and faiths. Its mission statement reads:

“[The School] is built on a rich Christian tradition of prayer, liturgy and worship in which the talents of each member of the community are celebrated and the place of God at the centre of our lives is recognised. Through an oral approach, and with appropriate aiding, we are committed to encouraging deaf pupils to develop good speech and language. This commitment underlies our aim to deliver a broad and balanced education which will lead each pupil to the fulfilment of his or her potential.”

The School follows an oral philosophy, using the Maternal Reflective approach. This means that children's speech and language are developed by staff extending their original utterances in much the same way as the parents of young hearing children would do (for example, a child might say, “We go park,” and the adult would reply, “Yes, that's right, we went to the park today”). Much of what children do is recorded using pictures with captions or written reports negotiated between pupils and teachers.

Post-16 students wishing to attend mainstream courses in local colleges of Further Education can have their needs assessed and appropriate support provided. They have access to the specialist facilities for educational and personal support in the School, including Speech and Language Therapy, audiological monitoring and assessment, and careers education and guidance. Support (oral and written) at college is provided CACDP-trained Notetakers and includes deaf awareness training for mainstream tutors and students. Work experience placements are provided through College links or Project Trident.

TheProgramme: It was decided to hold the event over two and a half days, including an industrial visit and a variety of on-site interactive workshops, as had been the case in the first two pilot courses. The conference was supported throughout by at least two Teachers of the Deaf and a Note-taker, with access to a Technician as required.

<u>DATE & TIME</u>	<u>SUBJECT</u>	<u>SESSION LEADER</u>	<u>COMPANY</u>
28.6.99			
1.45-2.15pm	Introduction	Stevie Mayhook	Understanding Industry
2.30-4.30pm	Visit	Harry Marsden	GNER (York Station)
29.6.99			
9.00-10.30	Management	Martin Kingsley Jan Hartley	National Grid
11.00-12.30	Small Businesses	Peter Smith	Princes Youth Business Trust
1.30- 3.00	Marketing	Paul Stevenson Moya Cunningham	York & County Press
3.30- 5.00	Customer Care	Liz Jackson	J Sainsbury
30.6.99			
9.00-10.30	Design & Development	Robin Marsden	Shepherd Design Limited
11.00-12.30	Production	Mark Lonsdale	John Smith's Brewery
1.30- 3.00	Human Resources	Chris Lamb	Unison
3.30- 5.00	Summary	Stevie Mayhook	Understanding Industry

The Students: Thirteen post-16 students (7 boys, 6 girls) took part in the conference, aged 16-19 and following a variety of courses.

Preparation: The researcher made an announcement at the 1997 NATED annual conference, outlining the project and inviting members working in appropriate settings to contact her if they would consider running one of the pilot courses. The School's Post-16 Co-ordinator expressed an interest and the researcher visited the school in the autumn term. Understanding Industry courses had not been run at this venue before and the tutor had no previous knowledge of such courses in mainstream settings. The programmes and materials used in the previous pilots schemes were discussed and evaluated: despite their modification, there was still some concern as to the appropriateness of the resources for use in this context. An outline programme, similar to that used by the first two pilot centres, was negotiated and the tutor was kept informed by telephone and fax as progress was made.

The Session Leaders were identified and contacted by various means. Harry Marsden from GNER, having taken part in the second pilot course, agreed to organise a behind-the-scenes visit to York Station (a visit to London's Victoria Station by students on the third pilot course had been very successful). He did not attend the training session at the School as he felt his previous experience had given him an understanding of the communication issues involved. Peter Smith of the Prince's Youth Business Trust and Liz Jackson from Sainsbury's had also been involved in the second pilot course and were willing to contribute again. Liz could not attend the training workshop, but contacted the School to discuss her session.

Martin Kingsley and Jan Hartley had recently attended a training workshop held by UI for National Grid staff and volunteered to become session leaders. They both attended the training session held at the School. John Smith's Brewery had already been very supportive of UI's work in the region throughout the year and there was some concern that they would not be able to take part in this event. Mark Lonsdale, however, was able to adapt a session he had run in mainstream schools and he attended the training workshop.

After several cold calls to local newspapers, the York and County Press agreed to lead the Marketing session. Andrew Bilton attended the training session and was supported by his colleague, Moya Cunningham, at the conference. The Design and Development session also proved difficult to fill, but after some very circuitous networking, Shepherd Design Limited came up trumps with Robin Marsden. He was recruited too late to attend the training session, but paid heed to the information he was sent and made contact with the School a few days before his session. Unison's York office was cold canvassed, using their involvement in the Sussex region as an introduction. Their Education Officer, Chris Lamb, was very interested in the proposed conference and attended the training session. All the Session leaders were sent a copy of the UI text book, session leader guidelines and sample Briefcase exercises for their topic.

The Training Workshop was held at the School on 24th May in the Chapel, which would also be the venue for the conference. The format was kept informal, with plenty of time for participants to ask questions. The local UI Area Manager and two of her colleagues were also able to attend.

A tour of the School enabled participants to see pupils of various ages at work and to

observe the teaching methods and environment the students were used to. The main session was led by the Post-16 Co-ordinator and included information about the impact of hearing impairment on communication, literacy and personal development and a demonstration of the technical aids that would be available. A summary sheet of communication issues was given to each session leader for future reference. There was then a brief synopsis of UI's work and a discussion of the implications of the previous talk when planning sessions for this event. The modified text book was on display and there was an opportunity to photocopy sections of interest and discuss possible activities. The tutor asked session leaders to let her know what activities were planned so that she could ensure appropriate resources were on hand and organise students into compatible groups.

All those who attended felt that the training session was useful as many of the implications of deafness had not been fully appreciated beforehand. The opportunity to see how 'expert' staff communicated, the level of students' vocabulary and the technical equipment available enabled them to plan appropriate sessions with exercises that were accessible to the students without being patronising.

The UI Text Book had been modified and updated. Copies of the relevant chapters (and ring binders for storage) were sent to the School in advance but had not arrived in time to be distributed to the students before the course started. A copy of the original publication was given to the School for staff use.

The Students' Questionnaires had also previously been modified. This was the first time that the latest versions, revised in the light of difficulties experienced during the third pilot course, would be used both before and after the course.

The Conference: The event ran smoothly, with the students attending enthusiastically and all the session leaders having carefully prepared their input. A member of the school staff acted as a 'scribe' throughout the conference, using a computerised note-taking facility which projected her transcription onto a screen. This had the effect of providing 'live sub-titles' in each session and the notes could be saved for editing and later distribution.

There was some initial delay to the start of the industrial visit because of problems on the line just outside the station. The students were split into two groups to ease mobility and within these groups the students were further 'clustered' so that they could be attached

to a tutor who would make notes which they could consult during the visit. The platform and car park areas were very noisy which made it hard for the students to concentrate on information being provided; the visit to the ticket office inside was more useful as the person demonstrating procedures could be heard and seen more easily and the students were interested in the computerised booking system. The training centre was very impressive and students had an opportunity to sit in a more acoustically-friendly setting and ask questions.

The Management session was well-prepared with information summarised on ohp transparencies and reproduced as handouts. The practical exercise proved challenging but fun as students made economic and environmental decisions about supplying a new shopping centre with the necessary power. Small Businesses introduced the work of the PYBT, encouraging the students to consider the skills and resources needed to establish a new enterprise.

The Marketing session had been well-prepared, with ohp transparencies and summative handouts. The students' pre-existing knowledge of marketing strategies was limited, so much of the planned work was set aside to enable them to gain maximum benefit from a couple of short exercises, working in small groups with the help of tutors. The students started discussing issues such as shoplifting and attitudes of staff to young shoppers, which provided a natural lead-in to Customer Care, exploring the lifelong value of a customer to the company. This session was very practical, with a mixture of discussion and observation activities. The figures involved for a customer remaining loyal throughout their adult life were impressive; when this was extended to show the impact of good or bad service and the knock-on effect of customers giving favourable or critical accounts of their experiences to friends, the figures became very complex (especially for the person trying to do the maths on the flipchart!).

Design and Development was also well received. Despite the short notice, the session leader had put in a lot of thought and came armed with handouts, scale models, materials samples and a Powerpoint presentation. Some of the students were very interested in industrial design and the construction industry and all of them were able to relate to his work when he talked about York's new swimming complex and explained how many modern buildings such as fast food restaurants are pre-fabricated Portakabins, assembled on site. The Production session was also very practical, with the students assembling sections of pipework to a brief, then repeating the exercise with the components and groups re-arranged

to demonstrate the importance of good organisation and teamwork in the production process.

The Human Resources session addressed discrimination and equal opportunities - a highly relevant issue for these students. The role of unions in the workplace was discussed and students considered case studies and gave presentations distinguishing situations which were unfair from those which were actually illegal and identifying actions that could be taken.

The Summary session used the Egg Cups exercise from the UI Briefcase⁶, incorporating elements from all the previous sessions. The language and scenario had been modified for the previous pilot courses and - after a slow start - the students became very involved in the competitive element of the activity. The post-course questionnaires were completed and the certificates presented.

The room was suitable for the purpose, and the hospitality extended to visitors was excellent. Some of the younger pupils prepared snacks at break times which provided an opportunity for the session leaders to talk informally with the staff and students. The cookery teacher was retiring after many years at the school and a recipe book had been compiled featuring many of the items which had been served. UI purchased several copies and sent them to the session leaders along with letters of thanks for their involvement.

Feedback and Implications: On the whole, the programme ran well. The visit was not as successful as had been the case on the other pilot courses and there were possibly two contributing factors. The first was the noisy setting of the site and the problems station staff were having at the time; the second was the students possibly not understanding the reason for the visit and not being adequately prepared for the experience. A more 'traditional' setting such as a hotel or factory may have been more appropriate and, in future, it might help if students had a chance to consider the role of the visit in the programme as a whole and prepare some questions in advance. The late arrival of the text books probably exacerbated the problem.

Attendance at the session leaders' training workshop had been excellent and this was reflected in the high level of visual aids, awareness of vocabulary and the short activities prepared. All the session leaders and the tutor felt this had been a worthwhile experience and would encourage future session leaders to the centre to take part in a similar activity.

⁶See Appendix I

The presence of a 'live' Notetaker on the whole was positive, especially as the information could be saved and reproduced for distribution later on. However, some session leaders found it disconcerting: many had carefully prepared ohp transparencies and handouts which were largely ignored as students concentrated on what was being put on to the adjacent screen. Session leaders also found it distracting to catch sight of what they said being reworded and lost the flow of their presentation. The facility had been described at the training workshop but not demonstrated at length and it proved more invasive than had been expected. At future events, it might be better if the Notetaker defined key words, gave guidance on pronunciation and summarised sections or instructions, rather than reiterating everything that was being covered. The same Notetaker was present at every session, which provided consistency in the way information was presented.

The local UI personnel were unable to attend any of the sessions other than the last half-hour of the summary. However, as they had been very enthusiastic at the training workshop it was hoped that they would reinforce the new contacts made with local companies and continue to be involved with the School. All the session leaders made positive comments about the interest shown and effort made by the students and said they would be willing to be involved with the School in future.

The tutor was impressed by the range of session leaders and the efforts they made to communicate appropriately with the students. She was particularly pleased that the conference had been organised by a qualified Teacher of the Deaf and felt that this was an important factor in ensuring the success of such a venture ("For a special school for the deaf it was very useful to have Stevie's expertise as course organiser"). Criticisms concerned the late arrival of the text book (which was otherwise felt to be a good resource) and the lack of structure in the visit. Generally, the experience was felt to be very worthwhile and the School would be keen to run another similar event. The tutor's own input had contributed greatly to the efficiency of the conference as she pre-planned groupings for the different activities to ensure an appropriate mix of skills and language.

All the students seemed to identify different sessions as being of the most personal use, although overall the main benefit was felt to be the opportunity to learn about the different roles performed by people in industry. Not surprisingly, the most popular sessions were those allowing the most student participation. The numbers having a positive opinion of the business world rose significantly by the end of the course, although those

contemplating a career in business and industry or considering running their own business dropped slightly (probably due to greater understanding of the implications). All were either very glad or glad they took part in the course and the majority (11) said they found it easy to understand the sessions.⁷ Their comments included:

- “I am glad I did learned Business and industry. I am quite interesting in this course. Thanks for having fun for us.” (Evan, aged 18)
- “[I have a very positive opinion of the business world because] I have learned many difficult things to put a business formed together but the course was worthwhile understanding. [I understand the business world a lot better because] before I thought it was just buying things and set up but I didn’t realise it was lots more than that... the activities which we took was a challenging but fun... I am very grateful because I have learned alots about the Business in Industry and getting lots of information it will be very useful for me in the future. Many thanks.” (Mike, aged 17)
- “[I have a positive opinion of the business world because] I have learnt a lot about business, I have lots of awareness about business, union, etc. It would made successful for my job in the future... Before I don’t know about business very much, now I do know much better e.g. fiance teamwork etc. I didn’t realise there have lots of different things in business.” (Vanessa, aged 16)
- “It really help me alot and I’m glad that I’ve taken part of it.” (Jake, aged 16)

⁷ The newly modified pre-and post-course questionnaires had been used; they proved easier to interpret and yielded more meaningful data. These versions were to be used for all the remaining pilot courses.

4.6Summary of the Fifth Pilot Course for Hearing Impaired Students

TheVenue: A non-selective, non-maintained special school for hearing-impaired children of primary and secondary school age offering both residential and day provision in a north-west seaside town. Post-16 Further Education students are supported in local mainstream colleges and the centre also provides direct support for hearing-impaired students at a number of colleges in the region, including notetaking, tutorials, speech therapy and literacy/numeracy workshops. The School follows an Auditory-Oral philosophy, aiming to maximise the use of each pupil's residual hearing in order to promote the development of spoken language. There are fewer than 50 pupils/students in total, so there is a strong sense of community.

TheProgramme: A conference format over two and a half days was chosen, to be held at the end of the summer term when the timetable and resources would be more flexible

<u>DATE & TIME</u>	<u>SUBJECT</u>	<u>SESSION LEADER</u>	<u>COMPANY</u>
12.7.99			
1.00-1.30pm	Introduction	Stevie Mayhook	Understanding Industry
2.00-4.00pm	Visit	Ian McGuigan	Prince of Wales Hotel
13.7.99			
9.00-10.30	Health & Safety at Work	Julie-Ann McKee	British Nuclear Fuels Limited
11.00-12.30	Small Businesses	Chris Halliwell	The Prince's Trust
1.30- 3.00	Marketing and Sales	Matthew Eld	Liverpool Daily Post & Echo
3.30- 5.00	Customer Care	John Davies	J Sainsbury plc
14.7.99			
9.00-10.30	Design & Development	Dr Belinda Crook	Phillips Components Limited
11.00-12.30	Management	Paul Rogers	Halifax (North West) plc
1.30- 3.00	Human Resource Management	Adrienne Moores Terry Wilson	Boots
3.30- 5.00	Summary	Stevie Mayhook	Understanding Industry

The Students: With the school being so small, it was decided to draw students from years 10, 11 and 12. Nineteen pupils and students were present for the introductory session and two more joined the group on the second day, giving a total of ten girls and eleven boys. On a similar course in a mainstream centre, this would have been considered a small group, but in this context it was unusually large as classes of deaf students rarely number more than eight due to their communication needs. The size could make it harder for students to follow instructions or discussion - especially the younger ones who had no experience of attending mainstream college classes - so this would need to be drawn to the attention of the session leaders when helping them prepare their activities. Ages ranged from 13 to 20, so they were obviously following a variety of courses and had different levels of prior knowledge and experience.

Preparation: Understanding Industry courses had not been run at this venue before. The School was visited early in the academic year, following a direct approach to the Head Teacher. A meeting took place between the researcher, the Head Teacher and the Head of Further Education Direct Support (FEDS). An outline programme was negotiated and dates fixed for the conference and a training workshop for the session leaders.

There was some concern early in the spring term as the Head had been absent and the Acting Head did not know what the diary entries were about; faxes sent by the researcher about progress and plans remained unanswered. The situation was rescued, however, with fresh information being sent and regular updates being faxed through as the programme took shape.

UI's local Regional Organiser was keen to be involved, although he ran very few courses in the town and did not have many appropriate contacts. He was, however, very supportive and was able to access local resources (such as newspapers and Yellow Pages) to help identify potential session leaders. He attended the training workshop and was present for most of the conference. Other UI personnel in the region also proved very supportive.

The drama suite was originally allocated for the event and the training workshop took place there, but for several reasons the actual conference was held in the gym, which suited the purpose equally well. A high level of staff support was provided, with the Year 12 Tutor present throughout and support being given by two or three additional tutors for each session.

The Session Leaders were identified and contacted by various means. The local Tourist Information office supplied the names of three major hotels and their General Managers and the Prince of Wales Hotel offered to host a visit. British Nuclear Fuels was approached to lead the Health and Safety session (not a regular topic on UI programmes) at the suggestion of local UI personnel. During the preliminary visit to the School, the researcher had bought copies of the local newspapers and as a result, Matthew Eld of the Liverpool Daily Post and Echo was approached to lead the Marketing session.

Chris Halliwell of the Princes Youth Business Trust was approached as a result of networking through their Hove office, which is very supportive of UI courses run in the Sussex Region. Sainsbury's Head Office was approached to suggest someone to lead the Customer Care session and, after a few staff changes, the task was eventually taken on by John Dawes and a local Checkout Manager.

The Design and Development session proved difficult to fill, even with the help of locally-based UI personnel. Just a week before the training workshop was due to be held, the local regional organiser suggested contacting Phillips Components, with whom he had a past association; after a few days of silence, they confirmed that Belinda Crook was able to cover the topic and would attend the workshop. Management also proved a surprisingly difficult topic to cover until UI's Regional Training Manager suggested contacting the Halifax, who had been very supportive in the Manchester area. After several telephone conversations, Paul Rogers was volunteered. Boots had recently been approached by UI's North West Regional Director to become involved with local courses and two staff offered to take part.

All the Session Leaders were provided with copies of the UI text book, guidelines for running sessions and sample activities from Briefcase for their topic.

The Training Workshop: Attendance at the workshop, which was held about three weeks before the course was due to run, was excellent. In addition to the session leaders, the local UI Regional Organiser and Training Manager were also present. Julianne McKee was unable to attend, but visited the school later the same day for a summary of the issues covered. Matthew Eld was very keen to participate in the conference, but was unable to attend the workshop, so he provided an outline plan of what he intended to cover in his session.

The School's Acting Head, Head of Further Education and the Audiology Technician

gave inputs on the causes and effects of hearing loss and the impact on communication and learning. A summary sheet of communication issues was given to each session leader for future reference. There was then a brief synopsis of UI's work and a discussion of the implications of the previous talk when planning sessions for this event. The modified text book was shown and there was an opportunity to discuss planned activities and to photocopy materials of interest.

A tour of the School enabled participants to see pupils of various ages at work and to observe the teaching methods and environment the students were used to. The teaching staff were very welcoming and spent a lot of time discussing their aims and methods. Lunch in the staff dining room gave further informal opportunities for wide-ranging discussions of issues relating to special education.

All those who attended felt that the training session was useful as they had no previous understanding of the implications of deafness. The opportunity to see how 'expert' staff communicated, the students' language skills and the technical equipment available would enable them to plan appropriate sessions with exercises that were accessible and relevant to the students. The staff of the school were gratified that the session leaders were willing to take the time to attend the workshop and find out the needs of the students they would be working with.

The UI Text Book had already been modified and updated, so copies of the relevant chapters (and ringbinders for storage) were sent to the School from UI's London office. Although they actually arrived on the day of the Session Leaders' workshop and the office staff had collated them appropriately, they were put into a staff member's office who had not realised they should be distributed immediately and students in fact did not receive them until the conference had started.

The Students' Questionnaires had also been modified twice and were ready for use.

The Conference: The Introduction followed what was becoming the 'normal' pattern of the completion of pre-course questionnaires, an explanation of the work of UI and the background to this event, with the main points summarised on ohp transparencies which had been prepared in advance. This session was brief in order that the students could leave promptly for their visit to the Prince of Wales Hotel.

The visit was a great success. The students were divided into two groups, each accompanied by two Teachers of the Deaf, and they made their way around the building in opposite directions to make communication and access easier. There were opportunities to see and compare 'behind the scenes' offices and staff facilities with the public 'front of house' facilities offered to clients. They enjoyed seeing the bedrooms, suites, bar, restaurant and banqueting facilities but were less impressed by the basement area where administrative staff worked and took their breaks. Broken glass on the concrete floor and a notice saying the hotel had come bottom in its chain's league for customer care caused great amusement and was referred to often during the following two days. The experience provided real-life situations to consider during the ensuing sessions and the hotel staff made them very welcome.

The Health and Safety session was well planned and built on students' prior knowledge and experiences. They were first asked to identify potential workplace hazards in a cartoon and then worked in three groups to produce risk assessments of such everyday tasks as making a pot of tea, repairing a bicycle puncture or cooking a simple meal. The students responded well and worked effectively in their teams with tutor support.

In the Small Businesses session, the work of the different branches of the Princes Trust was described and there were some lively role-playing activities to raise the students' awareness of the need for good communication in business. This was a very physical session and proved popular with the students.

The Marketing session had been well prepared, although some of the concepts were outside of the students' experience and vocabulary. Helped by the tutor, the session leader concentrated on the importance of good market research, the ways companies get information about potential customers and what is needed to draft an effective questionnaire. The Customer Care session followed on conveniently as Sainsbury's staff explained the lifelong value of a customer to their company. They gave brief personal career histories and most of the session was very practical, with students watching a video and identifying good and bad customer care practices.

Design and Development got the final day off to a lively start. The session leader arrived early to set up her equipment, having put a lot of thought into devising a practical and safe experiment to illustrate the need for products to be designed well and improved upon to

suit their intended purpose. She gave a brief personal career history, then described the company and its main products. The practical task involved testing how high rubber squash balls bounced at different temperatures and whether the construction of the balls affected this (one team used 'fast' balls and the other had the 'slow' balls). As this involved using dry ice, methylated spirits and boiling water, it looked very impressive and students were required to follow basic safety procedures. Every team member had a job to perform, whether it was dropping the balls, measuring the height of the bounce or recording the results on a table. When the experiment was over and the results discussed, the session leader related this activity to the tragedy of the Space Shuttle which had exploded upon being launched because the efficiency of some rubber components was affected by outside temperature changes.

The Management session required the students to be more contemplative: they had a range of skills to identify and to consider how they might be applied in a managerial role. This exercise stretched and developed their vocabulary and gave them an opportunity to consider their personal strengths, weaknesses and aptitudes in dealing with different situations. They then moved on to practise prioritising responses to a series of telephone messages.

The Human Resources session considered several aspects of employment, with students identifying the range of products and services offered by Boots and thinking about the implications for job availability and the type of people that might be needed.

The Summary session involved the Egg Cups exercise from the UI Briefcase⁸. After a slow start the students became highly competitive. It was interesting to see how the three teams developed very distinct personalities, with management styles ranging from the despotic to the laissez-faire. The post-course questionnaires were completed and the certificates presented.

Feedback and Implications: The whole event was considered a great success by all those involved. The staff felt that the experience had been very positive for all concerned and were keen for a similar event to be held the following year if funding became available. Several photographs were taken for the School's records.

"It is hard to suggest any improvements as the course was extremely

⁸ See Appendix I

well organised using a variety of activities, skills and speakers.” (Tutor)

“The pupils and staff benefited tremendously from the experience and are looking forward already to next year!” (Acting Head)

The tutors were impressed by the range of Session Leaders and the efforts they made to communicate appropriately with the students. The variety of activities and contrasts in style used in the different sessions had helped to maintain students’ interest throughout the conference.

All the session leaders were keen to develop further relationships with the School, whether in terms of visiting to give talks about their work, hosting industrial visits or offering work experience placements. Although many of them had felt nervous initially about addressing a deaf audience, they found the experience stimulating and were eager to discuss ways their presentations could be improved for the future. The turn-out to the training workshop had been very good and this was reflected in the high level of visual aids, awareness of vocabulary and type of activities prepared. The local newspaper’s photographer came to the Marketing session and the conference was featured in its education supplement during the summer, providing an opportunity for positive publicity for both UI and the School.

“[Advice I would give to other session leaders going to this venue would be] To go to the Training Day for Session Leaders, I found this invaluable.” (Belinda Crook, Phillips Components)

The students were enthusiastic and joined in all the activities willingly; they were attentive, took part in discussions and used their radio aids and individual post-aural aids appropriately to gain maximum benefit during the different activities. Their comments on the post-course questionnaires were very positive. It was particularly pleasing to see the way the different year groups integrated: this is possibly a result of the school being fairly small. They all seemed to identify different sessions as being of the most personal use, although overall the main benefit was felt to be the opportunity to learn about the different roles performed by people in industry, with the most popular sessions being those which included high levels of practical involvement. Typical comments included:

- “[I now have a positive opinion of the business world because] there are lots of

businesses and many things in the industry... [I think the most useful parts of the course were] the people coming in from their work to tell us about it...I enjoyed it really good, the long hours of the course were well worth it as it gave us more ideas of the business and industry world" (Philip, aged 15)

- "I have really enjoyed the course work I have done because it was really fun and enjoyable." (Donna, aged 15)
- "I think the most useful parts of the course were when we did activities to go deeper into the subject" (Marlene, aged 14)

The room was suitable for the purpose, with chairs and tables that could be easily moved into suitable groupings for different activities and a large expanse of walls on which ad hoc displays could be mounted. Additional space was available in nearby classrooms which was useful when groups needed to prepare presentations without being observed by their 'competitors'. The hospitality extended to visitors was excellent.

The local UI Regional Organiser attended most of the conference and therefore built up a good relationship with staff which would be useful in negotiating future courses. The students did not gain much benefit from the modified text books as they were not distributed in advance. It was stressed to them that the folders should be kept safely and contained a lot of information that could be of interest and use to them in the upcoming year.

It was hoped to build on this very positive experience and to run further UI conferences at this venue. However, because of the wide age range involved, the majority of students who took part this time would be likely to participate for the next two or three years, so careful thought would need to be given to extending the excellent results of this event whilst keeping it accessible for younger pupils who would be taking part for the first time. This concern was also raised by some of the Session Leaders in their response sheets, although they were keen to maintain involvement with the School.

4.7Summary of the Sixth Pilot Course for Hearing Impaired Students

TheVenue: A residential college for Deaf people aged 16+ in the Midlands, providing a range of support to meet the needs of its students attending a variety of vocational and academic courses at local mainstream colleges, with some provision for on-site pre-vocational or foundation level courses. Total Communication (signed language with spoken English) is employed to accommodate different preferences and needs. Students come from mainstream and special schools all over the United Kingdom, funded by their Local Education Authorities or the FEFC.

TheProgramme: Because most of the students attended different mainstream colleges and had designated support workers and programmes in place, it was decided to run the course as a series of twilight sessions over several weeks, with Wednesday being identified as the most suitable day. A Teacher of the Deaf and an Interpreter would support all the sessions.

<u>DATE/TIME</u>	<u>SUBJECT</u>	<u>SESSION LEADER</u>	<u>COMPANY</u>
20.10.99			
6.00-8.00	Introduction Visit	Stevie Mayhook Kerry Dighton	Understanding Industry Sainsbury's plc
3.11.99			
6.00-8.00	Human Resource Management	Lillian Greenwood	Unison,
10.11.99			
6.00-8.00	Marketing	Brian Slack	Powergen plc
17.11.99			
6.00-8.00	Management	Bob Mercer	Midlands Mainline
24.11.99			
6.00-8.00	Growing Businesses	Nicola Tomlinson-Murphy	The Prince's Trust
1.12.99			
6.00-8.00	Production	Bobby Haywood	Severn Trent Water Limited
8.12.99			
6.00-8.00	Summary	Stevie Mayhook	Understanding Industry

The Students: It was anticipated that there would be 12 students in the group, studying GNVQ Advanced Level Business or Information Technology.

Preparation: The researcher had previous positive dealings with the College Principal

through NATED and an earlier research project. As a major centre for the tertiary education for Deaf people, it had been planned to contact the college and offer the opportunity to take part in a pilot scheme but this was pre-empted by the Training and Development Manager contacting UI's London office making enquiries about a potential course. He was therefore contacted with information about the project in progress and the pilot courses that had already been run and, subsequently, a meeting was set up in May 1999.

The students attend mainstream colleges during the day and have 'twilight' tutorials at the centre in the evenings, and the tutor wanted the UI sessions to be run in these slots to cause minimum disruption to the students' routines. He was impressed by the modified text book and felt it was highly suitable for use by the College's students. The language of the student questionnaires was also deemed appropriate.

An outline programme was negotiated for the autumn term, taking into account local major industries and the type of personnel who might be willing to contribute at the unconventional times. A training workshop for the session leaders was planned to be held in October, also in a 'twilight' slot.

The UI Text Book: Relevant chapters of the modified text book with ringbinders for 12 students and a copy of the standard text for staff were dispatched in good time for the start of the course.

The Session Leaders: Despite the unusual timing, it was not too difficult to recruit appropriate session leaders. Sainsbury's Head Office identified a large branch which could host a visit at the required time; networking through existing Unison and Prince's Trust contacts identified their appropriate local representatives; UI had recently recruited several Powergen staff as session leaders and a series of telephone enquiries eventually led to Brian Slack; Midland Mainline and Severn Trent Water were both cold canvassed with the help of Yellow Pages. All the session leaders were all used to working shifts or flexible hours as part of their jobs and were quite happy to lead sessions in the early evening.

The Training Workshop: A training workshop was held for the session leaders on 6th October, 5.00-7.00pm. There was a full turnout, including session leaders, the researcher and tutors. Refreshments were waiting as people arrived and the session began with an opportunity to meet some of the staff who would be supporting the course and a discussion

of issues relating to the effects of deafness on communication, learning and personal development. This was followed by a brief tour of the site and a discussion of UI sessions, the implication for running such a course at a centre for hearing impaired students and opportunities to investigate resources available. The session leaders were very enthusiastic and asked a great many questions to help them plan their sessions appropriately. In addition to the standard text book, photocopies of the modified chapters and suitable Briefcase activities, session leaders received guidelines for running sessions, including the UI guidelines for working with sensorily impaired students.

The Course: The date of the first session had to be adjusted as the half-term break had not originally been taken into account. The researcher arrived to find only three students present (two male and one female, aged 18-22), along with an Interpreter and a researcher seconded from the RNID to look at ways of improving relationships with employers (neither had been at the training workshop). Enquiries suggested that no more would be attending this session, so pre-course questionnaires were distributed and completed while a hasty telephone call was made to Sainsbury's to warn of the depleted numbers. The visit was very interesting, with the three students asking very pertinent questions about the store the structure of the company and employment conditions. The staff had put in a great deal of effort, organising refreshments and bags containing handouts and gifts for the anticipated 12 students, plus staff.

It was clear that the course could not proceed if student numbers and staff support could not be increased and after a brief correspondence, the session leaders were contacted and told that the programme would not be running after all.

Feedback and Implications: As can be imagined, aborting a pilot course at such a late stage caused a great deal of anger and disappointment amongst all concerned. It had to be remembered that the other pilot courses had all been highly successful and that statistically the success rate had in all likelihood exceeded probability. However, the time, effort, travel and money that had been spent on the failed course could not be recouped and would need to be explained to the sponsors.

As the tutor who had been responsible for organising the event at the college had not been present at the introductory session, he was contacted by fax upon the researcher's return to Sussex the following day. Although the introductory session was regarded as an

important element of a course, it was hoped that the situation might still be rescued. It was stressed to the tutor that session leaders were expecting 12 students and had planned activities accordingly and that the researcher would be travelling from Sussex each week to support the programme: if student numbers could not be guaranteed, the course would have to be cancelled immediately. He responded swiftly but did not seem to appreciate the full implications of the situation:

"I was very disappointed to hear that students hadn't turned up on Wednesday. I had seen 10 students who assured me they would be there.

"I see 2 options.

"1. We cancel further sessions and revisit it in the Summer term. This would be possible as I haven't got the time to get students frog-marched to turn up this term. Or

"2. We cancel it and you come to [the college] to negotiate directly with team leaders to find the best way forward. They meet on Wednesday afternoons.

"I do apologise and I do appreciate that you too must be disappointed - I know I am. Sorry again."

Obviously, neither of his suggestions were viable and by this time the College had closed for its half-term break. The session leaders were informed immediately that the course would not be proceeding and all expressed regret, saying they had enjoyed the workshop and had looked forward to contributing to the programme. They all offered to take part in any similar projects run in the future.

Understanding Industry's London office asked for a full report, with full details of meetings, correspondence and costs. A letter was sent from the Chief Executive to the College Principal itemising the charity's concerns and outlays and explaining the implications with regard to its credibility with the companies concerned and the wasted precious funding. A few days later, a letter was sent from the Training and Development Manager (signed in his absence) to the researcher:

"I felt I needed to acknowledge the upset and anger the cancellation of the 'Understanding Industry' has caused you. I am really sorry that it hasn't worked out and acknowledge that it is entirely our fault. I appreciate the hard work that you have put in. The people I discussed the subject with, were very impressed with what was on offer.

"It is proving very difficult to motivate students who have had a full day at college and are doing their own catering and 'housekeeping' into evening tutorials. It is a problem that seems particularly bad this year.

"I hope that you will accept my apologies and sincere regrets. I hope that your excellent work does prosper. I feel sorry for the ten students who signed up for the course but couldn't be bothered to turn up.

"I hope we can work together at some point. Do keep us informed - next time I know I have learnt a lot about how to run such courses."

Despite the low turnout and cancellation of the course, the pre-course questionnaires completed by the three students attending the introductory session have been included in the final statistical analysis because of their value in identifying previous education-industry links experiences and their existing understanding of the business world. Other centres had presented unequal numbers of pre-and post-course questionnaires (because of illness, absence at the start or end of the programme or 'drop outs') so the lack of measurable progress in this particular group did not seem to present major difficulties in terms of the overall significance of the research findings.

4.8Summary of the Seventh Pilot Course for Hearing Impaired Students

TheVenue: Situated on the Kent coast, the College is a co-educational centre for hearing impaired students, several of whom have additional physical disabilities or learning difficulties. Students are taught on-site and at a local sector college with support from specialist staff. A team of specialists based at the local School for the Deaf (the main feeder school) provide a range of support services such as speech therapy.

TheProgramme: Because many of the students would find the varied programme and new language difficult to assimilate, it was decided to run the course as a series of weekly sessions over approximately half a term. The College uses Total Communication and signing/speech interpretations were provided throughout the course.

<u>DATE/TIME</u>	<u>SUBJECT</u>	<u>SESSION LEADER</u>	<u>COMPANY</u>
27.4.00			
9.00-12.00	Introduction Visit	Stevie Mayhook Morag Bailey	Understanding Industry Sericol
3.5.00			
9.00-12.00	Marketing	Richard Purvis	Kent Regional Newspapers
10.5.00			
9.00-12.00	Personnel	John Handley	Kent Careers Service
17.5.00			
9.00-10.00	Design and Development	Barbara Beevis	J Sainsbury plc
24.5.00			
9.00-12.00	Growing Businesses	Rowan Pringle Shane O'Leary	The Prince's Trust
31.5.00			
9.00-12.00	Summary	Stevie Mayhook	Understanding Industry

The Students: Seven students (five boys and two girls aged 16-17, with varying degrees of hearing impairment and some additional difficulties) took part in the course. They had all been following an in-house foundation programme which involved attending the local college, basic education/study skills, vocational 'tasters', work experience and enterprise projects (running a car valeting service and badge-making). Their progression routes would depend on individual needs and interests.

Preparation: The College was contacted and visited at the end of the previous summer term.

There had been no previous involvement with Understanding Industry and there was some concern about the appropriateness of the programmes available because of the students' low academic attainments. It was eventually decided to run the course on a 'half-day per week' basis in the first half of the summer term 2000 and to begin the course with an industrial visit. The text book, although modified to meet the needs of students with delayed or impaired language skills, was still felt to be aimed at too high a level for the students to cope with independently and it was agreed to issue copies well in advance of the start of the course. A second visit took place to confirm details of the programme and meet the staff who would be supporting the programme.

The Session Leaders were mainly recruited on the recommendation of UI's local Regional Organiser, with the exception of the representatives from the Prince's Trust who were identified by networking through that organisation.

All the Session Leaders were provided with copies of the UI text book, appropriate briefcase activities and UI's handbook on working with sensorily impaired students.

The Training Workshop: Although the general interest level was high, only one Session Leader (Richard Purvis from the local newspaper chain) managed to attend the workshop. Others either had prior commitments or had difficulties arise at short notice. Obviously, this gave rise to concern amongst tutors, but the absentees were issued with a summary of the information given and encouraged to contact the Centre with any queries about communication or their planned activities.

The UI Text Book: had previously been adapted into a loose leaf format with modified language for use by hearing impaired students. Copies of the appropriate chapters and a standard text book for staff use were delivered to the school during the Christmas break but, due to staff changes, they were not actually distributed to students before the start of the course.

The Student Questionnaires were those developed and used on the earlier courses for students with special needs.

The Course: The first session comprised the researcher introducing herself and the work of UI to the students, allowing time for pre-course questionnaires to be completed - which

required a high level of staff input. Rowan and Shane from the Prince's Trust had been unable to attend the workshop but Rowan came along to the introductory session to meet the students and to get an idea of the level at which to pitch their session. The tour around Sericol's warehousing, production and administration areas proved very popular, especially when it ended with a trip to the staff canteen and the distribution of 'goody bags' containing souvenirs of the visit.

The Marketing session was pitched perfectly for this particular group of students. Richard described the various departments in a newspaper and then encouraged students to explore the role of headlines. A gesture which was really appreciated by the students was the distribution of personalised 'flyers' which he had produced based on his earlier discussions with the tutors.

John Handley had an established relationship with the college and so had a good idea of the pitch and pace needed. His session followed on very well from Marketing as he began by having the students design labels for spaghetti tins and then used a flipchart exercise to progress from the idea of selling a product to selling one's self.

Barbara had less time available than the other session leaders due to a prior commitment, but she was very keen to take part. She discussed the company's plans for new stores and products and how they are publicised. The students sampled various items and then developed their own ideas for possible new products. With hindsight, Barbara felt she had tried to cover too much in too short a period but greatly enjoyed the experience and expressed an interest in taking part in future events at the college, especially if a preparatory workshop was offered.

Rowan and Shane explained the work of the Prince's Trust and how applications should be made; they also discussed grants specifically available for people with disabilities. The students took part in an exercise involving the 'pricing of a product' which had been produced by one of Rowan's clients.

In the Summary session, the students competed in the 'Egg Cups'⁹ exercise to draw together the various strands of business they had discussed in the preceding weeks. They then completed their post-course questionnaires and were presented with their UI certificates.

⁹ See Appendix I

Feedback and Implications: The students discussed the programme in the summary session and generally the feedback was very positive. Some had difficulty and needed help in remembering or distinguishing the various sessions. Seven pre-course questionnaires were received, but only six students were present when the post-course questionnaires were completed.

Generally, there was a slight upward shift in their opinion and understanding of the business world although, as in previous courses, the number wanting to run their own businesses declined after the programme had been completed. The course was felt to be interesting and useful and was regarded as helpful in planning their future careers. The majority were glad they had taken part and most said they found it easy to understand the sessions. Comments included:

- “[I think the most useful parts of the course were] talking about the different [kinds] of business” (Roberta, aged 17)
- “[I have a positive opinion of the business world because] I like this course” (Jordan, aged 17)
- “[I now understand the business world better because] business makes money.” (Leslie, aged 17)

The tutors felt the pilot course had been worth implementing and suggested that holding a course at a similar point in the following academic year would be most beneficial, with the modified text books being distributed and used throughout the year to support enterprise activities. The remainder of the current term would include a series of industrial visits to various large companies in the area and it was felt that students' appreciation would be enhanced as a result of the UI course.

“Contacts are being made through the Prince's Trust for possible work experience... The modified text book is good, but still a little high pitched. The file format is great to add handouts.” (Jenny, Tutor)

In addition to the college staff, UI's local regional organiser attended the four key sessions and gathered feedback from the session leaders. Written responses from session leaders proved hard to secure, but informal feedback after their sessions showed a positive attitude towards the event and a general willingness to participate in the future - especially if

the training workshop were to be run again.

The room was suitable for the purpose, with enough space for both whole-group discussions and syndicate activities. A good staff:student ratio ensured adequate support throughout and efficient interpretation of speech/signing.

4.9Summary of the Eighth Pilot Course for Hearing Impaired Students

TheVenue: Situated on the Sussex coast, the school caters for deaf children aged 5-18, following a philosophy of Total Communication. The staff includes qualified Teachers of the Deaf, specialist Communication Workers, Special Support Assistants and Child Care staff. The School was founded in 1945 with the aim of:

“[providing for] the deaf child such a complete training...that he or she on leaving school will be able to take his or her rightful place in society, make the fullest use of his or her capabilities in the profession or occupation of his or her choice and mix on equal terms with hearing people.”

TheProgramme: It was decided to run the event over three days in the summer term, with students competing in teams to make presentations on a business they might set up and run. At least two members of staff attended each session to help with communication.

<u>DATE & TIME</u>	<u>SUBJECT</u>	<u>SESSION LEADER</u>	<u>COMPANY</u>
12.6.00			
12.45pm	Introduction	Stevie Mayhook	Understanding Industry
2.15pm	Visit	Jason Fox	Brighton Thistle Hotel
13.6.00			
9.00-10.30	Health & Safety	Hugh Jones	Independent Consultant
11.00-12.30	Customer Care	Spencer Gregory	Sainsbury's Supermarkets
1.30- 3.00	Marketing	Ben Cleavley	Newsquest (Sussex) Ltd
3.15-4.00	Team planning session		
14.6.00			
9.00-10.30	Design/Development	Robin Lannin	Smithkline Beecham
11.00-12.30	Personnel	Sally Norvell Di Simmons Jenny Lloyd-Lewis	American Express
1.15- 2.30	Team planning session		
2.45- 3.45	Student presentations		
3.45-4.00	Summary	Stevie Mayhook	Understanding Industry

The Students: Fourteen students, nine boys and five girls aged 15-18 and with varying degrees of hearing impairment, completed the course. They were studying on a variety of GNVQ, GCSE and other courses.

Preparation: The School was already known to the researcher as she lived locally and had had previous contact with some of the staff through unconnected activities. Having contacted the School during the previous academic year, a meeting was set up in the autumn term with the Careers and PSHE Tutor/Transition Co-ordinator. An outline programme was negotiated, with dates agreed for the conference and a training workshop for the session leaders. It was decided to run the course over three days after the summer examination period. As a weekly-boarding school, pupils arrived late on Monday mornings and this was taken into account when planning the programme. It was decided to begin with an industrial visit and end with students making team presentations.

The Session Leaders: Again, because the course was running in her 'home territory', most of the session leaders were known to the researcher and had participated in many mainstream UI courses. Others were recruited by networking through existing contacts. The dates proved problematic in that several people who expressed an interest in taking part had prior engagements.

All session leaders were provided with copies of the UI text book and suitable Briefcase exercises (if they did not already have them) and were issued with UI's guidelines for working with sensorily impaired students.

The Training Workshop proved equally problematic and only two session leaders were able to attend - one of whom subsequently had her job re-defined and had to withdraw from the programme. However, they both found it very interesting, felt that it gave them a better understanding of what was required in this situation and provided an opportunity to discuss and negotiate the content of their session. The staff had prepared packs on communication issues and thumbnail sketches of the students taking part which were sent to those unable to attend with the usual UI materials developed to help them prepare for their sessions.

The UI TextBook, which had previously been modified for use by hearing impaired students and updated to keep it in line with the mainstream text, was delivered to the school prior to the course start date. Despite its modification and previous use, the tutor

commented in her feedback that it had “still too high level language for [this school’s] pupils.”

The Student Questionnaires developed for use on courses for students with special needs were used, with staff helping students who found some of the language difficult.

The Conference: The sessions were held in the hall, which allowed for flexible presentations using visual aids, use of personal post-aural and radio aids and various student groupings for different activities. The introductory session allowed the researcher to introduce herself and the work of Understanding Industry to the students and provided time for pre-course questionnaires to be completed with staff helping as required. The Briefcase activity ‘Egg Cups’¹⁰ was used to establish the tone of the course and then time was spent explaining the presentations the students would be required to give at the end of the course. The students had been organised into three teams of mixed ability and interests by the tutor so that they would be fairly evenly matched when preparing and giving their presentations.

During the visit to The Brighton Thistle Hotel, the students learned about the hospitality industry from both a customer’s and an employee’s point of view. There was plenty of time for refreshments and questions and the students enjoyed looking around the various facilities.

It had proven difficult to find a Session Leader for Health & Safety at Work, which was not a conventional UI topic but felt to be important for these students. Often when applying for jobs or work experience placements, deaf students are told they cannot be taken on because of the health and safety implications of their hearing impairment, although in most situations there is no legal sanction for such disbarment. Through a series of telephone calls, Hugh Jones was identified. He had prior experience of working with students with a variety of special needs and worked as a consultant on safety matters in the entertainment industry. He led an interesting session with students identifying many potential hazards in different work situations and learning about the concept of risk analysis. One student went so far as to comment on his questionnaire that he now wanted more information about safety issues.

The Customer Care session was originally going to be led by Sainsbury’s Customer Care Specialist for the region, who had attended the workshop at the school. Unfortunately,

¹⁰ See Appendix I

her job was re-defined a week before the start date and she had to withdraw. Sainsbury's were very helpful and identified the local in-store Bakery Manager, Spencer Gregory, as a suitable replacement. He had very little time to prepare but used existing Sainsbury's resources well; he was confident with his audience as his grandmother is deaf and a former pupil of the school. The students identified examples of good and bad practice on a video and learned about the history of the company. There was plenty of time for questions and the cake Spencer brought was much appreciated during the afternoon break by students and staff alike!

Marketing was led by Ben Cleavley from Newsquest (publishers of the local daily newspaper and weekly free sheet). He had led many sessions in mainstream centres, but took advantage of the workshop to learn more about the needs of deaf students. He developed a very practical session based on designing the front page of a newspaper and producing a suitable flyer to support it. There was a vast range of topics selected for the main headline, but the one about the school's teachers winning the Lottery prompted a lot of interest from the staff! The finished products were displayed for the remainder of the course.

The Design and Development session was also led by an experienced UI session leader who had participated in many courses in mainstream centres and also with visually impaired students. He was unable to attend the workshop as he was on holiday at the time, but developed a modified version of his usual session. The students identified everyday products they thought were either well or badly designed and considered why they held these opinions. He then set them a competitive group-based task involving the design and testing of paper aeroplanes. The students found some of the business-focussed instructions difficult to follow, but with help from the school's staff, they took on the main principles and much fun was had demonstrating the flight capabilities of their different designs.

Personnel was led by three members of staff from the Human Resources Department of American Express (a major employer in the area). They led a lively session looking at application and interview skills with particular attention paid to non-verbal communication. They had been unable to attend the workshop due to the pressure of work but had spoken to the Tutor about possible approaches and topics for their session.

The students were given two blocks of time in which to prepare the presentations to be given in the final session. They had to describe a small business they might set up, giving

details of how much money they thought they would need to get started, what they would charge for their services, how they would attract customers and so on. They could choose between starting a car valeting business or running a pet sitting/dog walking service. The judges were UI's South East Regional Director and the Bursar's Assistant from the School. Neither had seen any of the course in progress and so were completely impartial. The students gave their presentations in British Sign Language and a staff member gave a spoken interpretation to the judges. Two groups chose to talk about setting up a pet sitting service and the third opted for car valeting.

Given the limited time available, their presentations showed splendid imagination and flair. Points were awarded for content, delivery and evidence of team work. The winning presentation not only included detailed start-up plans but also (rather optimistic) projections for the future. "Animals R Us" came a close second with ambitious plans to look after any animal, no matter how exotic; the third group opted for car valeting and gave an impressive description of the division of labour between the team members to ensure all aspects of running the business were covered. Prizes of sweets and felt tip pens were awarded to the two sets of runners up, with the winners receiving complimentary cinema tickets, kindly donated by the Odeon complex in the town.

Feedback and Implications: This was the first UI course to be run at this venue, and was generally felt to have been successful on several levels. The students gave positive feedback about all aspects of the course and seemed to have liked the variety and the very practical nature of many of the sessions, especially when working in teams. Their feedback included the following observations:

- "[I now understand the business world better because it] was easy for interpreter and talk people for me" (Frank, aged 18)
- "[I now understand the business world better because] people come our School to explain to us it help me understand about in the future" (Karen, aged 16)
- "I enjoyed myself" (Dave, aged 16)
- "[I now understand the business world better because] I been involved." (Sharon, aged 16)

All the Session Leaders said how much they had enjoyed the experience and that they would be willing to be involved in further activities with the school. They all commented informally about being surprised at the interest and commitment shown by the students and

that they had found communication and the exchange of ideas much easier than they had expected, thanks to the signed/spoken interpretations provided throughout the sessions.

The evaluation sheet from the American Express session leaders was the only one to offer real criticism about the organisation of the event. In particular, they felt they had not been suitably prepared by UI in advance (none of them had been able to attend the training workshop).

“... the initial brief was quite different than what we realised through internal contacts at the school we should deliver. The information we were sent indicated that the level of understanding of the students was much higher ... we had to change the brief for the session & its content on several occasions... It was not possible to take further time out to visit the school and I feel that most companies are very committed but can’t take time out too much so rely on information coming through.

“All that was needed was one sheet of the audience, brief and objective and I felt there was rather too much information sent which no-one would ever have time to read ... ”

Despite these misgivings, the response ended positively:

“We all thoroughly enjoyed the opportunity, we think the students enjoyed it too and it helped them and would like to be given the opportunity again. The teachers were great too.” (Sally, American Express)

In contrast, all the other session leaders commented on how useful the information sent had been and that they would keep the communication guidelines for future reference.

“A tremendous opportunity to appreciate alternative communication approaches - made me think hard about sending out a clear, understandable message to ensure it was received as intended” (Robin, Smithkline Beecham)

“[I would advise other Session Leaders to] use the training day to acclimatise, learn about the children’s abilities, environment and

motivation...This was perhaps the most enjoyable session yet. The students were polite, well disciplined and enthusiastic ... A thoroughly enjoyable afternoon." (Ben, Newsquest [Sussex] Limited)

Overall, the conference was much appreciated by all concerned, although it is almost certain that the students would have gained even more had the attendance at the session leaders' workshop been greater. The level of language used in both written and oral presentations was felt to be too high for this particular group of students. This was reflected in the tutor's comments:

"[Ways in which the course could be improved would be] more people to attend Deaf Awareness training before delivery. Modify language, both in text book & in sessions, even more. More visual presentations. the session contents were good on the whole. The language levels were too high. What is needed is brief explanations, an activity with lots of pupil participation, then start discussion about key points." (Tutor)

The hall was ideal for the purpose, with ample space for whole-group discussions, syndicate activities and displays. Appropriate audio-visual aids were available and there was an excellent staff:student ratio to cope with communication and practical issues. The students' enthusiasm and confidence in dealing with strangers contributed greatly to the success of the conference.

4.10Summary of the First Pilot Course for Visually Impaired Students

TheVenue: A charitable Trust established in 1842 to promote the education of visually impaired young people throughout Sussex. This is now a registered grant-making charity promoting education and employment of visually-impaired young people up to the age of 25, offering a variety of services through family support liaison, advocacy, training and a Jobseekers Club. In 1998, the Trust approached UI offering to fund the development of a pilot course adapted from standard UI programmes to be run as an option in their Summer School programme for that year.

TheProgramme: It was decided to run the programme Friday-Friday, incorporating off-site visits, centre-based theory sessions and student presentations. The days were divided into “morning” and “afternoon” sessions, to allow some flexibility in the length of sessions and Thursday was left clear as the students would not normally attend on that day.

<u>DATE & TIME</u>	<u>SUBJECT</u>	<u>SESSION LEADER</u>	<u>COMPANY</u>
7.8.98			
Morning	Introduction	Stevie Mayhook	Understanding Industry
Afternoon	Visit	David Lewis	SEOS Displays
10.8.98			
Morning	Organisation	Chrissie Osborne Linda Skinner Nicky Silva	Legal & General
Afternoon	Visit	Lisa Watson Ann Grant	Legal & General
11.8.98			
Morning	Working With People	Rachel Bond	American Express (Europe)
Afternoon	Visit	Alison Wescombe	Brighton Thistle Hotel
12.8.98			
Morning	Bright Ideas	Paul Huntley	Acorn Inns
Afternoon	Preparation	Paul Huntley Stevie Mayhook Jan Townsend	Acorn Inns Understanding Industry The Trust
14.8.98			
Morning	Presentations	Paul Huntley Maureen Dickson Alison Evans	Acorn Inns Understanding Industry The Trust

The Students: It was decided to limit the number of students participating to twelve. This would allow for easy mini-bus transportation on industrial visits and would allow for a realistic staff:student ratio for support. The number of students influenced the structure of the programme and twelve allowed for three permanent competitive teams to be established for its duration. All the places were filled and the composition of the whole group proved very interesting.

There were five girls and seven boys, aged 13-25 and studying a range of subjects for GCSE, 'A' Level, NVQ, GNVQ, degree and post-graduate qualifications. Eight students attended mainstream schools or colleges and the remainder went to special schools or were training at the Trust's offices. There was a wide diversity of industrial experience within the group: from none at all to two years' employment as a graduate engineer (prior to losing his sight). The level of visual acuity experienced within the group ranged from total sightlessness to useful but impaired vision; three students used long canes to aid mobility when on visits.

Preparation: The Trust initially approached UI's London office and was referred to the Regional Director for the South East. An exploratory meeting was held in the spring to discuss broad issues of viability and then a second was held including the researcher in her role as Regional Organiser for Sussex with experience of students with special needs. It was felt that a standard programme would be difficult to run in a way that would be both meaningful and interesting for students with restricted vision: however, the basic concept of having people from industry addressing issues raised by their work was felt to be highly valuable. Two subsequent meetings and informal discussions resulted in a programme equally balanced between sessions held at the Trust's offices and industrial visits to local companies. This balance was unusual and there were some concerns about the availability of session leaders and a willingness to host visits at the height of the holiday season. However, it proved surprisingly easy to find people keen to participate. To overcome the difficulties posed by the students having varying levels of prior knowledge of the world of work, the traditional headings for the sessions were changed to make them more accessible and open to wider interpretation.

Although none of the students had guide dogs, two of the staff did and session leaders had to be forewarned of this fact in case of allergies, phobias or difficulty in accessing premises on visits.

At the time this course was set up, it had not been intended to run pilot courses for visually impaired students as part of this study. The Trust had approached UI about running the programme and with it not being for a school or college and slightly outside of UI's normal remit, different funding arrangements were set up. However, the normal UI monitoring procedures were applied and when funding later became available for similar courses, it was decided to include the data.

The Session Leaders were drawn mainly from UI's established database for the region. David Lewis at SEOS had both led sessions in schools and hosted industrial visits by local students. After an initial reaction of "But we make visual display systems - is that suitable for blind people?" he was happy to organise a tour of his company's premises and promised to check that the site was particularly tidy to prevent accidents. Legal and General Assurance had three very experienced session leaders who were all keen to take part and one approached their Personnel Department with a view to organising a follow-on visit to their offices. The local American Express office had three staff who had previously run UI sessions on Human Resource Management but none were available for the appropriate date; however, a colleague in Milton Keynes had heard of their experiences and was interested in becoming involved. The Brighton Thistle Hotel had not previously been involved with UI courses, but the researcher had established contacts there through her previous work in a local school for the deaf. Despite a recent change in personnel, Alison Wescombe was happy to organise a visit. Paul Huntley, the proprietor of Acorn Inns, had been involved with previous conferences and readily agreed to lend his expertise to the programme.

The Training Workshop: All the session leaders were extremely keen to take part in such an interesting project, but were concerned about issues of communication and safety. Given that the UI personnel had no previous experience of working with visually impaired students, an awareness-raising session seemed imperative. A workshop was originally booked for 10th July but for a variety of reasons, none of the session leaders were able to attend. This caused great consternation, particularly for staff at the Trust who had no prior dealings with UI and seriously began to doubt their competence.

A second workshop was set up for the morning of 17th July and most of the Session Leaders were able to attend. This provided an opportunity to raise awareness of issues relating both to communication with visually-impaired students and running UI sessions. The Trust provided simulation spectacles so that the session leaders could appreciate some



of the degrees of impairment the students would experience and the staff answered the various questions raised in terms of potential session content and tasks that could be set. Session leaders were invited to submit materials (information about their companies, exercises to be completed etc) for the Trust to have transcribed into appropriate media such as large-print, braille or CD-ROM to meet the specific needs of individual students. A handbook had been prepared summarising the issues covered and the session leaders were encouraged to contact the Trust with any queries.

It was generally felt that the training session was useful as many of the implications of visual impairment had not been fully appreciated beforehand. Several of the people present said it had made them consider the implications of having visually-impaired colleagues or clients and they would be investigating their own companies' provision in this area.

The UI Text Book had previously been adapted to make the language and content more readily accessible to hearing-impaired students. It was decided to use this format for this course, but with further modifications to ensure the folders contained information specifically relating to issues raised on the programme. Each section was edited to remove the unwanted material and graphics. This was then supplied on disk to the Trust for production in large-print and braille. White ringbinders with the UI logo in dark blue were supplied for storage. The Trust was issued with a 'complete' modified version and also the standard text book for future use with students working at a higher level.

The modified, modularised text book was generally felt to be a useful resource, although it was not specifically used during the course. The large print format meant that, despite being heavily edited, it occupied a lot of space in a standard ringbinder - and the braille version was even more cumbersome!

The Students' Questionnaires had also been previously modified for use with deaf students and these too were reproduced in large print format on A3 sheets. Some of the students would be able to complete them independently, but some would need to have the questions read aloud and to have their responses scribed.

The Course: The first session consisted of an introduction to the programme, completion of pre-course questionnaires, an explanation of the work of UI and the background to this event.

The main points were summarised on ohp transparencies and handouts which had been prepared in advance. It was explained that the week's events would be linked to an ongoing competition: using information and ideas gained through the course, each team would make a presentation about a service they would provide for a particular target client group. The winners would be given free tickets to Thorpe Park (kindly donated by Thorpe Park after an approach from UI's Regional Director). To illustrate some of the considerations to be made when running a small business, the students took part in the Egg Cups exercise from UI's Briefcase collection of activities¹¹.

The visit to SEOS for an overview of a modern 'factory' proved a great success and generated a very positive attitude towards the next few days. The company supplies visual display systems such as flight simulators for commercial and military use. The students were shown around by members of the company's staff and had opportunities to ask about human resource practices, technology and ethical issues. The older students who were investigating potential career paths found the organisation of staff into project teams and the range of information technology facilities and products of particular interest. The company donated a polo shirt and talking watch and it was decided to award these to students who demonstrated special qualities during the week.

The session on business organisation gave the students a chance to consider a variety of management issues and skills from logistics to communication with customers. The theory was then demonstrated in practice during the visit to Legal and General's office complex where the group was shown around different departments, with opportunities to talk to staff and monitor telephone enquiries from customers and their agents. It was interesting to see and discuss the organisation of staff into specialisms, a very different principle to that at SEOS. Refreshments were provided in the staff canteen and several managers were available to answer questions about the company, its structure and services offered.

In "Working With People", the students considered issues of both staff management and customer liaison skills. There were several short activities which were recorded on a flipchart for future reference. The hotel visit gave the students an opportunity to find out about the range of jobs available in such an organisation, the expectations management has of its staff, standards expected by customers and skills and attitudes needed when dealing with difficult situations. Students were able to visit a suite and a standard room and compare the front of house facilities with behind the scenes in the less glamourous staff lift area.

¹¹ See Appendix I

“Bright Ideas” was the title given to the session that, in other contexts would usually be called “Small/Growing Businesses”, providing an opportunity to consider some of the material they would use in their presentations. Paul helped them consider various factors in running a hotel, bar or restaurant and to appreciate the implications of targeting specific client groups such as ethnic minorities, gays, business people, families etc. To further illustrate this, he took them to visit one of his pubs (conveniently situated opposite the Trust’s offices!) and provided them all with lunch and a tour of the premises. He gave them information about the company’s ‘loyalty’ card scheme and spent the afternoon helping them prepare for their presentations with unbiased advice. He obviously inspired them because half of them turned up on Thursday to continue their work, despite having a free day. Those who could not get to the office (mostly the younger or less independent students) telephoned one another to discuss work in progress.

The final session was given over to the students’ presentations. They were allowed some time to rehearse and co-ordinate the work that had been completed since Wednesday afternoon. The judges comprised one of the Trust’s staff (herself sightless), UI’s Regional Director for the South East and Paul Huntley from Acorn Inns. They could award up to 10 points for each of four categories: original idea; content; presentation skills; team work. The judges’ scores for each team would be added together to give the final result (maximum of 120 points).

The first group talked about their plans to open a vegetarian restaurant called *Food for Thought*. They outlined their reasons for choosing a particular location, the type of customers they hoped to attract, the menu they would offer and the philosophy that determined the decor (green for vegetables, nature and health; white for purity). They had floor plans showing flexibility of furnishings to accommodate customers with various needs (physical disability, size of party etc). Each member of the team had undertaken a specific task and researched information or produced materials which they then described. There were detailed menus, staff training programmes and suggestions for getting start up capital.

The second group wanted to open a facility for mid-teens that emulated the adult environment of a pub or club (but without alcohol) and avoided the traditional youth club image of social workers and table tennis. They had contacted Social Services and the Princes Youth Business Trust to ask about potential funding and had received favourable responses. They described the facilities and activities they would offer, including a discreet advice centre,

and their staffing policies. Because of the radical impact of this venture, it would be called *The Effect* and would be located in the town centre for easy and safe access, with opening times to reflect the needs and commitments of this age group. They would aim to break even to develop and consolidate their services, but would not be driven by the sole aim of making a huge profit. Leaflets were distributed to reinforce and summarise some of the information and it was explained that although the bulk of the presentation was delivered by one of the team members, the background research had been evenly distributed and undertaken.

The third group chose a similar theme but used a short drama to put their case across. Using the format of a daytime television show, the eponymous presenter of *Emma Talks* questioned the proprietor of a teen pub project about to open in the town. Other 'panel members' were a Conservative Councillor/concerned parent and HRH the Prince of Wales, whose Youth Business Trust had given the project financial backing and support. Issues of security, philosophy and desirability were debated in front of a 'live studio audience'. This group was handicapped by one of its members declining to take part at the last moment and her role (the interviewer) was taken at short notice by one of the Trust's staff.

After consultation between the judges, the winners were the first team with *Food for Thought*. They scored a total of 99.5 points, against 99 points for *The Effect* and 90 points for the teen pub. Each member of the winning team received a certificate, their ticket for Thorpe Park and details of the trip.

The presentation was then made for the Outstanding Student award. The SEOS polo shirt and a certificate were presented to the youngest student in the group who, despite his youth, had consistently raised issues during the course, asking appropriate questions and demonstrating a mature attitude and understanding of the topics covered. His interest and appreciation had been commented upon by several Session Leaders as well as staff from UI and the Trust and the decision to give him the prize was unanimous. The speaking watch and a certificate were awarded to a girl studying GNVQ Business Studies for being the student who had made the most personal progress during the course. She had started by being fairly reticent and had ended by being the driving force behind the Food for Thought project and its key presenter. In addition, she had taken a keen interest in all the activities, identified the kind of working environment she wanted join and had decided to approach the Brighton Thistle Hotel to negotiate a work experience placement. There was some concern that both the individual awards had been given to members of the same team that won the tickets to

Thorpe Park, but it was felt that all the presentations had been made on merit and had been genuinely earned.

Feedback and Implications: The course was regarded as a success in terms of maintaining and increasing the motivation of the students and generating positive responses from everybody involved. The mixture of on-site activities and visits to local companies was greatly appreciated and some students even suggested that more visits should be included. The main benefit was generally felt to be the opportunity to investigate different working environments and to discuss with local employers potential opportunities for employment. One student, embarking on a Masters course in Industrial Relations and Human Resource Management, approached several of the session leaders with a view to arranging work placements during the vacations. Several students mentioned that they had become more confident about expressing themselves and now felt positively about their future employment opportunities.

Having been initially worried by the poor attendance at the original workshop, the Trust's staff visibly relaxed as the course progressed and it was clear that session leaders and students were all working hard to maximise the effectiveness of the programme. In a letter of thanks to the organiser, the Employment/Training Assistant wrote:

“I would like to thank you for all the time you have given, and the hard work you have put in to enable us to hold such a brilliant course. I know that everyone who took part thoroughly enjoyed themselves, and learnt a lot about the world of work. We were all amazed at the volume of work that the young people produced and the way they joined in.”

Twelve pre- and eleven post-course questionnaires were returned, many with additional comments or supplementary information provided voluntarily. Impressions and knowledge of the business world showed a marked increase and the whole course was rated as excellent (3), very good (5) or good(3). The students gave various reasons for enjoying the event, ranging from establishing contacts for possible employment to developing a sense of humour:

- “[My opinion of industry and commerce is now very positive because] I personally think it is a good option of recognizing yourself (how bright you are, or can be with help and support from the right people)... [At] first I was suspicious about myself (I

think I was not usefull, not required)... [The most useful features of the course were] the visit and understanding of people involved... [I have gained a] bit more confidence on my knowledge and understanding of life skill... I loved the tour around the four star hotel, excellent I would personally loved to work in that environment.”

(Tamsin, aged 18)

- “By the visits I now understand what industry and commerce are all about... UI has given me a greater understanding ...[I have gained] good skills: P.R., more confident.” (Dale, aged 15)
- “It has given me wider understanding of what industry is all about... My knowledge has increased and widen my choices. [The best/most useful features of the course were] the visits to the industries themselves and to see how they operate... [I have gained] more confidence and knowledge of industry environment.” (Kathy, aged 22)
- “[My opinion of industry and commerce is now positive because I am] more aware of the diversity of the commercial sector... has reinforced my existing knowledge... [The best/most useful features of the course were] contact with employers re. possible work placements.” (John, aged 24)
- “[The best/most useful features of the course were] that we could design our own business and get advice on how to run it... I have socialised with more people and have now seen how to talk to different types of people.” (Melvin, aged 16)
- “I have worked in industry for 2 years... [The best/most useful features of the course were] the people visiting explaining their jobs and potential openings in the organisation for me... Given me more confidence to know I can still do things now I have lost my sight.” (Matt, aged 25)

4.11Summary of the Second Pilot Course for Visually Impaired Students

TheVenue: A co-educational college in Surrey providing vocational and educational courses for 120 visually impaired clients. Specialist support services include assessment, low vision assessment, rehabilitation, speech therapy, physiotherapy, educational psychology services, career and personal guidance, leisure activities and 24-hour medical cover.

TheProgramme: The programme was designed to fill the spring half-term break. The schedule incorporated on-site sessions and industrial visits, with half-hour breaks between morning sessions to allow for informal discussions or exercising guide dogs.

<u>DATE & TIME</u>	<u>SUBJECT</u>	<u>SESSION LEADER</u>	<u>COMPANY</u>
15.2.99 1.30-5.30pm	Introduction	Stevie Mayhook	Understanding Industry
16.2.99 9.00-10.30am	Marketing	Chris Batten	Chartered Institute of Marketing
11.00-12.30pm	Finance	David Cole	Lloyds Bank
1.30- 5.00pm	Visit	Beverly Smith	Sainsbury's
17.2.99 9.00-10.30am	Small Businesses	Mike Davis	PYBT
11.00-12.30pm	Customer Care	Beverly Smith	Sainsbury's
1.30- 5.00pm	Visit	David Lewis	SEOS Displays Limited
18.2.99 9.00-10.30am	Production	Robin Lannin	Smithkline Beecham
11.00-12.30pm	Personnel	Lorraine Bruce	HSBC/Midland Bank plc
1.30- 5.00pm	Visit	Jenny Hasseldon	Caradon Trend
19.2.99 Morning	Preparation	Chris Batten	Chartered Inst. Marketing
22.2.99 11.00-12.30pm	Final Preparations		
1.30-5.00	Presentations	Beverly Smith Maureen Dickson Sue Jones	Sainsbury's Understanding Industry RNIB
	Summary	Stevie Mayhook	Understanding Industry

The Students: The course was run for the benefit of students who would be at the college during the February half-term period. At the time of the initial meeting between UI staff and college tutors, it could not be predicted how many students this would involve, their ages or the extent of their visual impairment. In the event, there were 11 students, some residential and some travelling independently each day. All the students were studying for NVQs in Information Technology. The age range was much wider than UI's normal remit, with students aged 19-59 in the group. The size of the group allowed for easy mini-bus transportation on industrial visits and would allow for a realistic staff-student ratio for support in sessions and on visits. Three permanent competitive teams were established by the tutor.

There was a wide diversity of educational and industrial experience within the group. Some had only experienced work through college simulations or vocational placements whilst others had previously held responsible positions or been self-employed. As the age range would suggest, some of the group had been visually-impaired from childhood whilst others had lost all or part of their sight as adults. The level of visual acuity experienced within the group ranged from total sightlessness to useful but impaired vision; two students had guide dogs which accompanied them throughout the course. Two of the group also had hearing impairments.

Preparation: The programme was devised as a result of the course tutor's experience of UI courses in a mainstream environment and the experience of the local UI staff in running a programme for visually-impaired students the previous summer.

An exploratory meeting was held to discuss broad issues of viability and various formats were proposed. It was felt that a standard programme would be difficult to run in a way that would be both meaningful and interesting for students with restricted vision: however, the basic concept of having people from industry addressing issues raised by their work was felt to be essential. The one-week programme containing a mixture of visits and presentations with an ongoing competitive theme was deemed the best option and in due course the tutor faxed through an outline programme and confirmed dates for the course and a training workshop for session leaders. The programme was fuller than had originally been anticipated but, given the age range of the participants, it was felt that they could cope with more information and activity.

As with the first course for visually impaired students, it had not originally been intended to include this course as part of the research project. It was initially run as a 'mainstream' course, with adjustments made to funding arrangements to take account of the atypical client group and additional work involved in devising a suitable programme and preparing the session leaders.

The Session Leaders were drawn from UI's established database for the region or by networking with existing contacts. Chris Batten from the Chartered Institute of Marketing was a very experienced session leader and also had a pre-existing relationship with the college. David Cole was cold-canvassed using the involvement of other Lloyds branches as an introduction. Bev Smith was identified after the researcher contacted Sainsbury's Head Office and then the Regional Office. Mike Davis was suggested by another PYBT branch. David Lewis had both led sessions in schools and hosted industrial visits (including one by the previous group of blind students) and was happy to organise a tour of his company's premises. Smithkline Beecham's Robin Lannin has taken part in several courses and conferences in the Sussex area and was happy to help on this occasion. Royal Sun Alliance (a major employer in the area) was enthusiastic about taking part and hosting a visit; however, the company underwent major reorganisation between the training workshop and the start of the course and the visit had to be re-located to Caradon Trend, a local engineering company and supporter of UI; a message was later received saying they would have to withdraw from the Personnel session, too, and a UI 'regular', Lorraine Bruce from Midland Bank (undergoing its own transformation into HSBC), kindly stepped in at 24 hours' notice.

Chris Batten offered to facilitate one of the 'preparation' sessions and Bev Smith offered to be a judge for the students' final presentations.

The Training Workshop was set up for the morning of 18th January and most of the session leaders were able to attend. This provided an opportunity to raise awareness of issues relating to communication with visually-impaired students and running UI sessions. The college provided simulation spectacles and conducted a series of simple exercises to demonstrate some of the effects of different types of visual impairment; the staff answered various questions raised regarding potential session content and tasks that could be set. Technical support systems such as CCTV were demonstrated and there was a discussion and demonstration of mobility issues which were particularly important for those hosting industrial visits. Session leaders were invited to submit materials (information about their

companies, exercises to be completed etc) for the College to have transcribed into appropriate media such as large-print, braille or CD-ROM to meet the specific needs of individual students. A handbook had been prepared summarising the issues covered and session leaders were encouraged to contact the College with any queries. It was generally felt that the training session was extremely useful: many of the implications of visual impairment had not been fully appreciated beforehand and several people present said they would be investigating their own companies' provision for visually impaired staff or clients.

The UI Text Book had previously been adapted to make the language and content more readily accessible to hearing-impaired students and had been further modified for the previous pilot course for blind students. Since then, the standard text book had been updated and so it was necessary to do the same with the modified versions.

Each modified section was edited to remove unwanted material and graphics and was then supplied on disk to the College for production in large-print or braille. Unfortunately, there was a problem with the format of the disk supplied and the modified texts were still being downloaded from e-mail and photocopied on the morning of the introductory session, so students were unable to study them in advance. None of the students needed a braille version, but all needed large print; some were able to use 14 pt on A4 pages, whilst others needed further enlargement on to A3 sheets to make the text accessible. Obviously, this made the documents quite bulky. White ringbinders were supplied for storage and the College was issued with a 'complete' modified version and also the standard text book for future use with students working at a higher level.

The Students' Questionnaires had also been previously modified and these were reproduced in large print format for students to complete independently or with help from their tutors.

The Course: The Introduction comprised the researcher introducing herself to the students, issuing pre-course questionnaires and explaining the work of UI and the background to this event. It was explained that the week's events would be linked to an ongoing competition: using information and ideas gained through the course, each team would make a presentation about a service they would provide for a particular target client group. The winners would receive a prize. In this instance, the prize was a box of chocolates for each team member: various ideas such as vouchers for a local restaurant or leisure centre had been considered, but

because of the diversity of this group it was felt that a collective prize would not be appreciated. To illustrate some of the considerations to be made when running a small business, the students took part in the 'Egg Cups' exercise from UI's Briefcase collection¹². Some of the students, particularly one of the older gentlemen, were resistant to the activity and seemed dubious about the value of the course in general, but on the whole there was a positive atmosphere.

The Marketing session was well received, possibly because the session leader was himself a man of mature years. The students took part in discussion and exercises which built on their experience of running a service out of the IT Department and considered how this could be marketed to a wider clientele. The Finance session gave a lot of practical, factual information about raising and monitoring funds for a small business.

The visit to Sainsbury's was only a partial success. A branch in Rustington, West Sussex, had been suggested as they were piloting systems to assist customers with sensory or physical impairments and were keen to get the students' reactions. When this was suggested at the training workshop, the tutor had been enthusiastic about the idea: however, he was not on site for the actual course and the tutor in charge pointed out that it involved a very long journey and the students would no sooner arrive than they would have to leave to get back in time for their afternoon transport. After some hurried discussions pleading calls, it was agreed that the Finance session would end 15 minutes early, there would be a short break for dogs to be exercised and then the group would set off, meet Bev in the staff canteen and have lunch while she gave them information about the store and the company. They would then have their tour of the shop and return (hopefully) by 5.00pm. Even this did not quite go to plan and they were around 20 minutes late getting back, which upset taxi drivers, and the canteen staff had not been given enough notice to cancel lunches so food had been wasted. The students felt that they did not have enough time in the store to appreciate the innovations, so they might as well have gone to a nearer branch and had more opportunities to ask questions.

In the Small Businesses slot, Mike Davis was able not only to give information about the main work of PYBT, but also on new projects without an upper age limit aimed at people with disabilities. He encouraged the students to consider their strengths and interests and ways that these might be applied to set up a business. The Customer Care session with Bev Smith was very popular, with lively discussion and many anecdotes about good or bad

¹² See Appendix I

service encountered in stores.

SEOS supplies visual display systems such as flight simulators for commercial and military use and the visit proved very interesting because of the use of IT at various levels throughout the administration and production processes. The students were shown around by members of the company's staff and had opportunities to ask about human resource practices, technology and ethical issues.

Robin Lannin's Production session included a history of Smithkline Beecham and information about its products and also gave students a chance to compete in their teams to design and produce the most effective paper aeroplanes (the winners received SB polo shirts). Once again, most of the students entered into the spirit of the activity and there was a lot of goodwill, but one or two people were uncomfortable and said they felt the exercise was puerile. Although Lorraine Bruce had very little time to prepare her Personnel session, she generated a lot of interest by giving a brief description of her role and then allowing students to ask questions about recruitment and interview procedures in her company and others. She was very frank and admitted that some of them might encounter difficulty in gaining employment because of their age rather than their disability. The visit to Caradon Trend (again, arranged at short notice) ran smoothly and enabled students to visit production and administration areas. Of particular interest was the customer care section where calls are received and dealt with using a networked computer system.

At this point, the students should have been consulting with their team members and planning their presentations, but because of personality clashes the original groups had disintegrated. The tutor helped them to re-organise into four teams and they duly prepared and gave their presentations, which were judged by Bev Smith from Sainsbury's, Maureen Dickson from Understanding Industry and Sue Jones from the College.

Feedback and Implications: Because this course had not originally been intended to be included in the research project, the pre- and post-course questionnaires were passed to the Regional Director to analyse as she had played a major part in negotiating the funding. By the time the data were needed, the original documents were no longer available for further statistical analysis. The following observations are therefore based on the report sent to the centre at the conclusion of the course.

The mixture of on-site activities and visits to local companies seemed to have been appreciated. There were some problems which affected the running and quality of this particular course and these would need to be addressed if a similar venture were to be considered in the future.

Firstly, having accepted that a course of this nature would attract students outside the traditional 16-19 year old age group, it was nonetheless disconcerting to learn five weeks before the course started that this would range from 19 to early fifties and be fairly evenly spread out. In the event, two of the participants were in their late fifties and most were 20-35. Given their other differences in life experience, educational attainment, employment history and personalities, it was extremely difficult to organise a course to meet all their needs and interests. UI's remit is the provision of quality courses for sixth formers and the recruitment and training of session leaders and the support materials offered reflect this. However, in this instance, most Briefcase exercises were not suitable (either because of the students' disabilities or their perception of them as patronising) and the session leaders had not been prepared for dealing with such a diverse audience. The age range proved far more difficult to deal with than the visual impairment, and it was lucky that many of the session leaders were mature or in positions where they have to deal with a range of people that enabled them to cope with some of the resistance that was put up by one or two members of the group.

Secondly, the tutor who had been responsible for initially approaching UI, leading the training workshop and deciding on the programme did not attend any of the sessions. The tutor who was present was very supportive, but had found herself confronted with the task of printing and collating the text book at the start of the course, motivating students and dealing with problems such as the changes to the schedule for the Sainsbury's visit. The quality of the course suffered through this lack of continuity.

Thirdly, the room provided for the course was not ideal. Although the students made the most of it and it had the advantage of giving them access to CCTV and computers, it was difficult for them to sit so that they were visible and/or audible to one another and the session leader, and when they split into small groups for activities the work spaces were limited and difficult to access safely.

Finally, as had been recognised with running other courses for students with special

needs, a great deal more time and support was required than for a 'standard' UI course. All participating session leaders needed a training session similar to the one described above and the opportunity to discuss their intended presentations with either the UI organiser or a member of the centre's staff. Similarly, it is vital that local UI representative attends the training session so that they are equipped to recruit future session leaders.

On a more positive note, all the session leaders said they would be willing to take part in other activities at the College and they would investigate opportunities for work experience placements. The tutors felt that, despite some resistance, all the students had benefited from the experience and that their final presentations demonstrated how much knowledge had been gained. In turn, the students said they appreciated the opportunity to talk to people who could give realistic information about employment opportunities, which was - without exception - their major concern.

4.12 Summary of the Third Pilot Course for Visually Impaired Students

The Venue: The Further Education Department of a school for children with little or no sight in the South West of England. As a specialist residential centre whose origins date back to 1838, it has a strong identity and attracts visually impaired students from around the country. It aims to give its students the same opportunity to realise their maximum potential and level of independence as their sighted peers by providing a blend of post-16 education, training and recreation backed up with specialist support, including work experience placements and attendance at a local college. Understanding Industry courses had not been run at this venue before.

Programme: It was decided to run the programme Monday-Friday towards the end of the spring term. Each session would last two hours, to allow for plenty of discussion and to accommodate reasonable breaks which had to be taken in a different building. A visit to a workplace and opportunities for students to give presentations were considered important components. Each session was supported by at least one member of the college staff.

<u>DATE/TIME</u>	<u>SUBJECT</u>	<u>SESSION LEADER</u>	<u>COMPANY</u>
13.3.00 12.00- 4.30	Introduction Visit	Stevie Mayhook Andrea Brighton	Understanding Industry Barclays Bank plc
14.3.00 10.00-12.00	Small Businesses	Ann Maloney	The Prince's Trust
1.30- 3.30	Health & Safety	Kevin Cooke	Exeter City Council
15.3.00 10.00-12.00.	Design/Development	Tony Davison	IBM (UK) Limited
1.30- 3.30	Customer Care	Lisa Honaban	J Sainsbury
16.3.00 10.00-12.00	Team Work	Ian MacDonald	BT
1.30- 3.30	Personnel	Jeanette Nicholls and Jill Drummond	ACAS
17.3.00 a.m.	Preparation time		
p.m.	Presentations Summary	Stevie Mayhook	Understanding Industry

The Students: Nine students, with varying degrees of visual impairment, attended. Ages ranged from 17 to 21, so they were following a variety of courses and had different levels of prior knowledge and experience. During the programmed sessions, the students were organised into three groups for syndicate activities, based loosely around their areas of study; for the final presentations they worked in two groups with an even spread of skills.

Preparation: The College was visited early in the academic year, following a direct approach to the College Director during the summer vacation. An outline programme was negotiated and dates fixed for the conference and a training workshop for the Session Leaders. A second meeting was held at the end of the autumn term to share this information and discuss ideas with staff who would be participating, selecting students or supporting the event in various ways. The Visually Impaired Centre was allocated for the conference, which suited the purpose very well as it had movable desks, enough space for activities and good audio-visual support.

The Session Leaders were identified and contacted by various means. As there was no local Understanding Industry Regional Organiser in the area, there was no pre-existing 'pool' of volunteers, so recruitment took place by networking with existing contacts in other regions and cold canvassing. This proved a long process as much of the task involved making initial telephone calls to identify an appropriate person in an organisation and then waiting for them to respond. Without an established relationship, such communication obviously took a low priority for many, and often contacts assumed that if they simply did not return calls it would be realised that they were declining to take part.

It had originally been hoped that a local hotel or leisure facility would host the opening visit, but although several such enterprises expressed interest, they all seemed to be in the middle of refurbishment programmes or company mergers. With the scheduled training workshop approaching, Barclays Bank was contacted since they had furnished funds for an audio version of the text book and, eventually, the manager of the local regional office agreed to host the visit, although she had reservations about how interesting it would be for students with impaired vision.

The Regional Disability Manager of the Prince's Trust was eager to take part in the programme, once she was identified by the Trust's London office. Exeter City Council was approached to lead the Health and Safety session (not a regular topic on UI programmes) and

an Environmental Health Officer, volunteered to take part. The Design and Development session proved difficult to fill without local knowledge, and companies who had been involved in neighbouring areas of the county were unable to help. IBM's Tony Davison was based in Hampshire, but was willing to help on this occasion as he felt he could benefit personally and professionally from the experience. Sainsbury's Head Office was approached to find someone to lead the Customer Care session; although not a traditional topic on UI courses, it was proving very popular with the special schools and colleges and Sainsburys had been very supportive. The Customer Care Specialist for the South West was unavailable on the date required but her counterpart for Bristol and Wales volunteered her services.

Management also proved a surprisingly difficult topic to cover until Ian MacDonald from BT offered to lead the session based around the topic of team work. He had previously led sessions in mainstream settings but had no prior experience of working with visually impaired students. He considered various activities from the UI Briefcase, but many involved retaining and sharing written information which presented logistical problems in this setting. The Personnel session was led by Jeanette Nicholls from ACAS and her visually impaired colleague, Jill Drummond (accompanied by guide dog, Mollie). They had been asked to look at issues relating to equal opportunities and grievance procedures.

All the Session Leaders were provided with copies of the UI text book, guidelines for running sessions, UI's handbook on working with sensorily impaired students and sample activities from Briefcase for their topic.

The Training Workshop: Attendance at the pre-course workshop was very poor, which raised some concern. The majority of session leaders had accepted the invitation and the importance of the session was stressed in all communication. However, when the day arrived, only the researcher and Ann Malone from the Prince's Trust turned up. The college staff had put in a great deal of effort to make the session a success, with audio-visual aids and handouts prepared to explain the nature and range of visual impairment, special catering arrangements and several members of the college staff giving up their time or finding people to cover their scheduled duties. Despite hurried telephone calls to the absentees, numbers could not be increased and the day was swiftly re-scheduled so that a minimum of staff needed to attend and the itinerary would be a great deal shorter.

Ann Malone was enthusiastic and took full advantage of the information and demonstrations on offer. She said she felt a lot more confident about her contribution to the

course and was looking forward to the personal and professional gains she would make from the experience. The manager from Barclays was unable to attend due to pressures of work, but as she was hosting an on-site visit rather than delivering a workshop-style session, it was felt that she could prepare adequately using the UI materials. After the workshop, the researcher visited the branch to speak with her and discuss the format for the visit in the light of issues that had been raised. The Environmental Health Officer had become ill since agreeing to take part and was unlikely to be back at work in time for the conference; Kevin Cooke, a Student EHO, stepped in but could not attend the workshop. He arranged to observe the introductory session in order to meet the students and assess the level at which his own session should be pitched. Because of the distance involved, Tony Davison had already said he would be unable to attend the workshop but he arrived at the college early on the day of his session in order to speak to the staff about the students and their communication needs. He had an advantage in that he worked closely with a number of visually impaired colleagues and was heavily involved in issues of communication using computers. Sainsbury's representative could not attend the workshop but arrived early on the day of her session to talk with staff and observe the Design and Development session. BT and ACAS were unable to release the appropriate staff due to pressures of work.

Those who did not attend were sent summaries of the main points covered and provided with thumbnail sketches of the students who would be attending. However, the poor attendance was felt by the staff of the college to suggest a lack of real commitment and understanding of communication issues on the part of the session leaders. It clearly drew into question the ability of UI in general, and the researcher in particular, to run such an event in this type of setting. Expectations for the success or impact of the final event were obviously lowered.

The UI Text Book had previously been modified for use by hearing impaired students. Sponsorship by Barclays Bank enabled an audio version to be produced and this was one of the first centres to benefit from the facility. A copy of the standard text and the modified print version were given to the college for staff to use as appropriate in the future.

The Students' Questionnaires developed for use on courses for students with special needs were issued to the college in advance so that they could be reproduced in appropriate print sizes; one student who uses braille had her responses written in by a member of staff.

The Conference: The Introduction comprised the issuing of pre-course questionnaires, describing the work of UI and explaining the background to this event. Remaining time was then given over to preparing questions to ask during the visit to Barclays Bank that afternoon. The visit was hosted by the Branch Manager, Andrea Brighton, who showed the students the main areas of the bank, both 'front-of-house' and 'behind-the-scenes', and talked about its history and the various services offered. The students' prepared questions enabled Andrea to know what their particular interests were and answers that couldn't be given immediately were noted and the appropriate information forwarded to the College within a couple of days. Two important pieces of information were that there is increasing centralisation of roles in the industry (eg call centres) and that recruitment levels of new staff are currently low. Both these factors could obviously affect students' career aspirations.

In the Small Businesses session, Ann encouraged students to think about the personal qualities needed to set up a business and to practice the procedures needed to produce a business plan; she also gave information about the Trust's other activities. The Health and Safety session was well planned and presented students with a chance for both whole-group discussion and syndicate work. Kevin discussed the powers of EHO's, the consequences of bad practice and then helped the students explore and apply the principles of risk assessment in different situations. In Design and Development, Tony led a lively round-the-table discussion which illustrated the design process and also allowed students to give their imaginations free rein. They were amazed to find that, after what had seemed an outlandish proposal, many of their ideas were entirely feasible from a technical standpoint, which then led them to consider the role of design within a business organisation where marketing, finance and production functions would also influence their work. Customer Care had the students exercising both diplomatic and mathematical skills as they calculated the lifelong value of a customer and ways of turning a satisfied customer into a delighted one. Revenue lost or gained as a result of customer telling their friends about the service received ran well into six figures, which made the students realise the importance of satisfied customers to a business and showed them the potential power they have as consumers. The Management session took in issues of organisation, motivation and team work as the students worked in groups to solve the problem of organising a holiday rota for staff with conflicting preferences. It was interesting to see how each team adopted a different attitude from "They can't all have what they want, they'll have to accept alternative dates" to "let them have what they want and we'll cover their work ourselves or employ temps". For Personnel, Jeanette and Jill came armed with information in various formats explaining what ACAS does and how disputes can

be settled. The session covered contracts of employment and disciplinary procedures. The students were given a selection of case studies which they discussed in syndicates and then gave feedback to the whole group.

The final session comprised the students giving presentations in two groups about a new business they would start in the area. They had used their free time during the week to collect information and were given the whole of Friday morning to prepare. The presentations were judged on the criteria of content, presentation skills and evidence of teamwork by the College Director, his Deputy and Kevin Cooke from Exeter City Council. The first team presented a drama showing the work of an employment and advice centre for people with disabilities. They had taped interviews with College members to gauge support, designed logos, made a list of equipment and resources needed and identified a suitable location from the property section of a local newspaper. The second group used ohp transparencies, tape recordings and handouts to describe an activity centre they would like to set up. Both groups had clearly tried to take on board many of the issues touched on during the week and the judging was a very difficult process, with only a couple of points tipping the balance in favour of the activity centre group. Sainsbury's had very kindly donated £40 in vouchers as a prize and it was decided to give £25 to the winning team and £15 to the runners up.

The post-course questionnaires were completed and the certificates presented at the end of the afternoon.

Feedback and Implications: Despite concerns generated by the poor turnout at the training workshop, the whole event was regarded as a great success. All the staff at some point during the week said how much better the event had been than they were expecting: they were impressed by the effort session leaders made to organise appropriate activities and their willingness to discuss employment opportunities candidly with the students. The two student presentations had far exceeded their tutors' expectations and the amount of research, imagination and detail they had put in - mostly in their own time - was astonishing. It was said by several staff that the event had given students opportunities that helped them surpass the expectations usually held for them.

All the session leaders said they had enjoyed their time in the College and would like to develop deeper relationships with its staff and students by giving further talks, hosting

visits or arranging work experience placements. Although many of them had felt nervous initially about addressing a visually impaired audience, they found the openness of the students made the experience stimulating and fun and they were keen to discuss ways their presentations could be improved for the future. Kevin Cooke felt the experience was so valuable that he wrote an article about his experience for the Council's in-house journal¹³. The tutors were impressed by the range of session leaders and the efforts they made to communicate appropriately with the students. The variety of activities and contrasts in style used in the different sessions helped to maintain students' interest throughout the conference. It was suggested that any future events (a proposal for which there was great enthusiasm) should build on this positive experience but that careful attention should be paid to the timing to reduce the impact on college attendance (early September or late June would probably best, depending on the courses and students involved). Typical comments included:

"I would definitely like to be involved in further sessions here. The students were wonderfully open and inventive and I probably got more out of it than they did! I'd also like the opportunity (if possible) to involve [a blind colleague] in a future session." (Tony, Session Leader)

"A good, well motivated group. They were all animated in the case studies exercise where they were split into groups. The feedback was positive - they had thought about their answers" (Jeanette, Session Leader)

The students were very enthusiastic and joined in all the activities willingly; they were attentive, took part in discussions and worked in allocated small groups very effectively. They all seemed to identify different sessions as being of the most personal use, although overall the main benefits were felt to be the opportunity to work in teams and meet people from industry. There was a marked upturn in their opinions and understanding of the business world and all were enthusiastic about the course, contributors and resources. Their comments included:

- “[I have a positive opinion of the business world because] I now know how they all have to work as a team” (Sharon, aged 17)
- “Tony (IBM) said there is a good structure for visually impaired to progress. He said there was a blind person in his firm who was higher up than him” (Patrick, aged 17)
- “I was impressed by getting my work in Braille and by the lady from ACAS with a

¹³ Draft version reproduced in Appendix J

- guide dog who showed that I could get a job like her.” (*Rachel, aged 19*)
- “I know a lot more than I did” (*Mark, aged 18*)

4.13Summary of the Fourth Pilot Course for Visually Impaired Students

TheVenue: A residential, specialist college based in the Midlands catering for blind and partially sighted people of all ages and backgrounds, including those with some additional disabilities or moderate learning difficulties. It provides and supports general education and vocational training to enable students to develop the skills and personal qualities needed to progress in life at work, home and in the community. The college was purpose-built in 1989 on a university campus and enjoys a close partnership with the local mainstream FE facility. Understanding Industry courses had not been run at this venue before.

TheProgramme: It was decided to run the programme on a one-session-per-week basis to accommodate other timetabled activities. This meant that the researcher would only be able to attend for the introduction and summary sessions, but locally-based UI personnel would be able to monitor the other sessions.

<u>DATE/TIME</u>	<u>SUBJECT</u>	<u>SESSION LEADER</u>	<u>COMPANY/ADDRESS</u>
9.3.00			
11.00-12.00	Introduction	Stevie Mayhook	Understanding Industry
1.15- 2.15	Visit	Maxine Johnson	LADKIA ¹⁴
16.3.00			
11.00- 1.00	Customer Care	Richard Turton	Tesco Stores plc
23.3.00			
11.00- 1.00	Personnel: Opportunity Knocks!	Peter Savage	Unison
30.3.00			
11.00- 1.00	Production: Make It Efficiently, Make It Profitably	Alison Hutchins	Leics Engineering Training Group
6.4.00			
11.00- 1.00	Business Organisation	Ken Walton Ray Hornett	The Prince's Trust Understanding Industry
13.4.00			
11.00- 1.00	Student Presentations		
	Summary	Stevie Mayhook	Understanding Industry

¹⁴ Leicester and District Knitting Industries Association

The Students: Thirteen students, with varying degrees of visual impairment, attended the first session. Ages ranged from 17 to 49, so they had different levels of prior knowledge and experience. About half of the group were on a Foundation programme and the remainder were studying for NVQs at Level 1 or 2. Three students decided not to complete the course, so the remaining ten worked in two groups to prepare presentations for the final session. Unfortunately, two were absent for the summary session and so there were only eight paired questionnaires available for detailed analysis.

Preparation: The centre was initially contacted by letter and then visited earlier in the academic year to discuss a possible pilot course. A further meeting was set up and an outline programme and workshop for session leaders were negotiated. A ground floor conference room was allocated for the sessions and appropriate staff to support the sessions and provide technical assistance were identified.

The Session Leaders had been identified and contacted by various means. Ray Hornett, UI's Regional Organiser for Northamptonshire, was very supportive in making suitable contacts and others were approached through cold canvassing and networking through existing contacts in other regions. An industrial visit proved quite difficult to set up, but after trying various existing and new contacts, Ray persuaded Maxine Johnson, Business Manager of the LADKIA, to show the students around the training centre on the first afternoon of the programme. Alison Hutchins of the Leicestershire Engineering Training Group was successfully approached by Ray to lead the Production session.

Because of the company's support on previous pilot schemes, contact was made with Sainsbury's in Loughborough via their London and Midlands offices, and it was understood that they would lead the Customer Care session. However, due to a misunderstanding, they were unable to take part and the local Tesco store agreed to take on the role at short notice.

Unison's Nottingham office offered to lead the session on Personnel: their Education Officer had previously been scheduled to take part in a similar event at a college for deaf students, but the course was called off at the last minute¹⁵. The Regional Disability Manager for The Prince's Trust had also been booked to take part in the aborted course for deaf students and was willing to take part in this programme. However, she was unavailable for the appropriate date and her colleague, Ken Walton, attended instead. It was agreed that this

¹⁵ See *Summary of Sixth Pilot Course for Hearing Impaired Students, above*

session would be run in two parts, with the Prince's Trust discussing issues affecting the establishment of small businesses and Ray Hornett of UI exploring organisational structures.

All the Session Leaders were provided with copies of the UI text book, guidelines for running sessions, UI's handbook on working with sensorily impaired students and sample activities for their topic.

The Training Workshop: Unfortunately, it proved difficult for session leaders to attend as agreed and impossible to find an alternative date to suit everyone. However, the UI personnel met with several members of college staff and discussed communication issues and individual students' needs. Those who did not attend were informed of the main points covered and provided with thumbnail sketches of the students who would be participating.

The UI Text Book had previously been modified for use by hearing impaired students and sponsorship from Barclays Bank enabled an audio version to be produced and this was one of the first centres to benefit from the facility. A copy of the standard text and the modified print version were given to the college for staff to use as appropriate in the future.

The Questionnaires developed for use on courses for students with special needs were issued to the college in advance so that they could be reproduced in appropriate print sizes for the students.

The Course: The Introduction comprised the researcher introducing herself to the students and explaining the work of UI and the background to this event. Students had some time before and during a buffet lunch to start discussing ideas for their final presentations.

The visit was hosted by Maxine Johnson, with support from her colleagues in the different training areas. It was explained that LADKIA offers training to people who are either unemployed or who have jobs but need to upgrade their skills. The centre is based in an industrial area with several textile companies within walking distance, and is able to place around 85% of trainees immediately upon completion of their training. The students were shown around the various work areas and the different skills were explained. There were opportunities for hands-on practice at cutting, pressing and overlocking, which caused great amusement, and time was available for questions about the organisation. Upon returning to the College, the students were organised into three groups to work through the Egg Cups

activity from UI's Briefcase¹⁶. This helped establish team identities and raised awareness of some of the issues that would come up in subsequent sessions.

The Customer Care session was led by Tesco's Bakery Manager, Richard Turton, who discussed the range of jobs performed by Tesco staff and the various customer care issues that arise when working with the public. There was plenty of opportunity for discussion and one student had prior experience of working in a bakery, which added interest. For Personnel, Peter Savage had been asked to look at various workplace situations, rather than recruitment procedures. He divided the students into two teams for a quiz on health and safety issues and discussed the many acronyms that students may come across at work. During the Production session, Alison Hutchins produced several artifacts for the students to handle and consider the implications of producing them commercially. She also explained her own career history.

The session on Business Organisation was held in two parts. After an ice-breaker activity, Ken Walton of the Prince's Trust explained his role in helping people with disabilities who are interested in setting up their own businesses. Ray Hornett compared the various departments in a business to the positions in a football team, to highlight skills needed and the interdependence of different roles in ensuring the efficiency and success of the whole team.

The final session comprised the students giving presentations in two groups about a new business they would start in the area. They had used their free time during the preceding weeks to collect and organise relevant information. The presentations were judged on the criteria of content, delivery and evidence of teamwork by a College Tutor, the researcher and UI's Regional Organiser for Nottingham, Terry Hazard. None of the judges had been involved with any of the sessions after the introduction and visit, so there were no preconceptions about the groups or their projects. Two students were absent, so both teams comprised four members. The first team gave a strong introduction to their company, giving its name, purpose and background. 'Sammy Electronics' specialises in supplying electronic equipment for blind people; a handout was issued giving further information on its operation and financial status. The students then took on the roles of satisfied customers, demonstrating and endorsing some of the products. The second team described 'Whizzkids', a childcare facility. It offered extended opening hours to accommodate parents working shifts or with particular needs such as single or teenage parents. Full details were provided in a

¹⁶ See Appendix I

folder of information, including computer-generated pie charts and graphics. They had produced full colour floor plans of both the interior and exterior areas of the nursery, including details of security measures and specialised work areas. A laminated poster was also available. They confidently answered questions about staffing levels and recruitment.

Both groups had clearly taken on board many of the issues touched on during the course and had also incorporated their own areas of interest. The judging was a difficult process, but it was felt that the second group had a more polished delivery and gave more evidence of collaboration. They received vouchers to the value of £10 donated by Tesco and the runners up received a selection of soaps donated by Bronnley.

The post-course questionnaires were completed and the certificates presented.

Feedback and Implications: Despite the poor turnout by session leaders for their training workshop, the event was an overall success. Session leaders are encouraged to visit the centre before a course for students with special needs is run because the range of needs and abilities can vary enormously, even within a seemingly homogeneous population such as “the visually impaired”. The UI handbook for Session Leaders working with sensorily-impaired students addresses many of the relevant issues, but cannot generate the level of preparation and insight that can be gained by attending a short workshop on site.

Staff who had not been involved with the course-in-progress but attended the final session were impressed with the way the students had co-operated to develop well-researched presentations, the supporting resources produced and the confidence with which they were delivered. The room was suitable for the purpose, with chairs and tables that could be easily moved into suitable groupings for different activities. Each session was supported by at least one member of the college staff. It would be hoped to build on this positive experience and to run further UI courses at this venue. Learning from the pilot course, consideration would be given to the range of students invited to participate, timing in relation to the academic year and the ‘running order’ of the subjects covered.

The general feedback from the students was positive, with the major benefit seeming to be the increased understanding of how businesses are organised and the way various roles influence one another. Some suggested that more visits should be included on the programme; a couple expressed the opinion that they would have liked to have seen more of the

administrative work at LADKIA, as well as the practical workshop areas, since many of them are hoping to go into financial or administrative positions. Key comments included:

- “I think the most useful part of the course was finding out about business structures.” (*Christina, aged 21*)
- “I now understand the business world better and I feel confident about getting involved in it.” (*Marlon, aged 49*)
- “The most useful parts of the course were working with people in a group; I enjoyed trying different things.” (*Sonya, aged 25*)

4.14 Postscript

All the pilot courses were greatly appreciated by the institutions involved and all requested similar events for the following year. As anticipated, they felt the programmes had given the students a valuable insight into the world of work and helped them to form realistic career aspirations. The benefit of having practitioners from a variety of specialisms added validity and credibility to the information given that is sometimes not appreciated when disseminated through a third party such as a Careers Adviser and the staff felt that genuine links had been formed with local employers which could be developed in a variety of ways. Above all, both tutors and students felt that the opportunity to communicate with strangers and work collaboratively with students from different subject areas boosted their confidence in dealing with future problem-solving and decision-making situations.

Approaches were made to various Trusts and other funding organisations and sufficient monies were raised to enable courses to be offered the following year at the same centres (with the exception of the venue for sixth course for hearing impaired students, which had needed to be abandoned).

These 'follow on' courses took various forms. In the centres for hearing impaired students hosting case studies 1 and 2, the local regional organisers felt confident enough to take on the organisational role and ran programmes similar to those cited. The third centre felt the programme had been of enormous benefit to the participants but, unfortunately, the following year had too few students to run a viable programme; they did ask, however, to be considered if funds were available in the subsequent academic year.

The fourth centre ran a similar programme but re-structured the days and times and the industrial visit took place in a city centre hotel, which proved more satisfactory. It was hoped to run a third course at this location, involving students from a local mainstream school.

The fifth centre was very small and several of the students who participated in the pilot would still be attending the following year. To overcome this, a completely different programme was negotiated, based on the theme of kite-making. Students were organised into three teams, given a demonstration of kite-making and flying and spent two days designing, planning and making their kites, using all the skills and topics covered in the pilot course.

The 'new' students were able to learn from their more experienced colleagues, who in turn were able to practise their staff training and management skills. Nobody had prior experience of using electric sewing machines and a lot of fun and satisfaction was derived from mastering different types of seams, hems and applique skills. The whole event was very popular, with several local companies - and, most importantly, the Northern Kite Group - participating. As with the previous centre, they hoped to run a third course involving students from a local mainstream college with whom they were forming links for integrated activities.

Case study centres 7 and 8 were also keen for similar programmes to be organised for the following year.

With regard to the centres for visually impaired students, the first pilot centre was keen to run a similar course but found that most of the students applying for the next summer school had already taken part in the pilot and so decided not to proceed. The second centre ran a successful programme, modified somewhat from the pilot to be less frenetic and better supported by college staff; because of clashing commitments, the actual event was overseen by three UI staff although the planning was undertaken by the researcher.

Despite the problems experienced in the planning stages of the third pilot course, the centre was very impressed with the level and range of work the students had produced during the week and were keen to offer a similar experience to a new cohort the following year. The centre in the Midlands wanted to consider running a further course, possibly with a more cohesive group of participants.

The enthusiasm and demand for these courses suggested that they fulfilled a role not addressed in other ways. However, there were several issues raised.

The courses were considerably more expensive to run than their counterparts in mainstream schools and colleges. This meant UI staff being involved in a major fund-raising exercise for a small number of courses, deflecting time and money away from their mainstream activities. The suggestion that the 'special needs' courses be standardised in terms of the variety of programmes and range of session leaders involved was resisted on the grounds that 'special needs' generated 'special provision' and the whole point of the pilot courses had been to identify the kind of accommodation that needed to be made for these students to have an experience of equal value to that of their mainstream peers.

These discussions took place at a time when the Directors of UI were considering re-branding the charity, changing the contracts issued to its self-employed workforce and standardising the courses offered to schools and colleges. Several issues were raised (not pertinent to this research) and it was decided not to progress with the courses for students with special needs in the diverse ways that had been developed during the pilot phase. It was hoped that the materials developed during this process and one or two of the formats would suffice to run courses for such centres in the future, without the need for dedicated staff, discrete funding or many of the additional input that the pilots and their follow-on courses had generated (again, a discussion of the wisdom or outcome of this decision is not within the remit of this research project).

CHAPTER 5: FINDINGS, TRENDS AND ISSUES

5.1 Introduction

Emerging from the preliminary meetings with staff, it became apparent that a major concern was their students' lack of exposure to the everyday world of work. Work experience placements were organised either by the centres or the mainstream colleges they worked with, but few students had or took opportunities for part-time jobs either in the evenings or weekends. Several reasons presented themselves: students with sensory impairments need to do more preparation and follow-up work to keep up with their everyday studies and so have less free time; weekly boarding students who only see their families at weekends do not want to spend their leisure time away from them (and they may also face strenuous journeys Friday night and Monday morning, making them less inclined to want to work in between) and a lack of confidence or knowledge about the application processes involved coupled with a fear of rejection or concern about operating in a less supportive and more integrated setting than they are used to.

However, it was also felt that such experiences would greatly enhance the students' understanding of the range of work available and the general 'ethos of the workplace' whilst enabling them to address concerns about communication. Allen et al (1989) found that employment was a lot easier to find after leaving school if a part-time, paid job had been undertaken, rather than simulation or voluntary activity. One-third of the students in their study found work independently, but the majority received help from school professionals or family networks. However, they also found that:

"...deaf students are not getting work experience to the same degree as their hearing peers. There is a definite need for more deaf youth to get on the job training and to begin establishing employment histories while in secondary school when they have access to vocational training, VR counselors, and other professionals to assist them." (p139)

Interestingly, Bull and Bullis (1991) found in their (American) study of 326 secondary education programmes for deaf and severely hearing impaired adolescents, that residential schools for the deaf were more likely to implement effective transition programs

than mainstream or ‘other’ institutions. Certainly, the vocational preparation offered in the second case study of deaf students showed a high level of commitment to on-site training and practical links with students’ home areas; that this was not a common feature of the studies may be due to this being a long-term residential centre whereas many of the others offered only weekly boarding facilities and therefore did not have the resources or feel the same necessity for such deep involvement. This is reflected in Bull and Bullis’ analysis:

“Unfortunately, given the day to day requirements of their jobs and limited resources, educators and other service providers may lack the time, methods and resources needed to fully implement transition options...”

“The data herein suggest that residential schools, in general, have higher implementation rates than do the mainstream and other groups. It appears that educators in residential schools may have opportunities to implement the varying components of transition programs at a higher rate than non-residential programs. In addition, residential schools offer a central base of education and referral services ... thus solidifying and streamlining - if not simplifying - this often complex process...”

“The involvement of adult service agencies with educational agencies was the final area that, although highly valued, was poorly implemented.”
(pp342-343)

Wootton and Lewis (1981) describe the ‘Into Work’ programme devised by City Lit in the 1970s to address the needs and concerns of young deaf students making the transition from school to adult life. The programmes included communication, numeracy, life skills, health education and current affairs:

“However, the careers education and work experience programmes, which include the practical application of much that is taught in the other part of the course, are seen as the major course components. In careers the students discuss their capabilities and interests and the limitation their deafness imposes on them. Information is given about different types of jobs which are discussed in detail. There are visits to various firms, some of whom employ deaf people already and trips to careers offices and Job

Centres to look at possible fields of employment.” (p11)

“During the course all the students have between three and five different work experience placements ... work experience has two aims. First it attempts to give the students a real experience of being in a ‘hearing’ adult environment ... second it offers students the opportunity of trying out different types of work, in different settings. The placements have made marked improvements in students self confidence and maturity (p12).

While this document may be out of date and changes may have taken place due to earlier and better diagnosis of hearing impairment, technological improvements in audiological support, increased awareness of disability and equal opportunity issues and development of vocational education, it is interesting to note the key concerns of core skills, work experience and employability remain constant.

Agathangelou (1982) describes a study of seventeen profoundly deaf 16-year olds who were found work experience placements of various kinds and duration:

“Little difficulty was found by ourselves and the Careers Service in enlisting the support of employers for work experience placements. However, considerable difficulty was encountered by three of the five schools. This was due to the general lack of detailed knowledge of their local employers and some reserve (on the part of the head teacher) in initiating a direct approach by telephone or visit. These methods we found provided ample places for placement and were used by us once the school reported difficulty and lack of response. Communication by letter often raises ambiguity and implies for many employers, an involvement in unnecessary bureaucratic procedure.”
(p17)

“In all instances, the competence implied in the performance observed surprised all parties except the trainee himself. They responded to all aspects of tasks set with interest but were not reticent in reporting the preferred tasks, against those disliked. In some instances, the preferences reported were for the more complex, technological, time-consuming, involving, higher status and sociable aspects of the work, set against the more menial, repetitive and

socially isolated aspects. The latter consideration was of overriding importance and jobs requiring long periods of physical separation from co-workers were especially disliked.” (p18)

As a result of the placements, five of the young people were made offers of employment. Agathangelou concludes that time and resources must be made available for work experience as it is of great value to the young people involved.

Crudden et al (1998) researched similar issues with visually impaired students:

“Respondents were presented with a list of 16 items or statements and asked to select a number from 1 to 5 to indicate how helpful the item was in obtaining the current or previous job. Having an education and having previous work experience were rated as the most helpful (both scored 4.33), followed by being able to get around by yourself (4.25) and having a positive attitude (4.09). Rated average in importance was being assertive (3.97), having adaptive equipment (3.94), having a relative or friend who helped locate the job (3.54), receiving orientation and mobility training (3.47), receiving computer training (3.41), being inspired by someone with a visual disability (3.20), receiving job skills training (3.12) and knowing the employer before being hired (3.01). Rated less helpful was provision of transportation (2.73), working with a rehabilitation counsellor (2.71) and receiving interview training (2.57).” (p55)

Wolfe (1998) also found that experience in the workplace was the most effective factor in obtaining paid employment:

“More important even than skills or credentials is work experience. For people with visual impairment, experience validates ability. Experience in either paid or volunteer work is one of the most important steps youths or adults with visual impairments can take to promote their careers. Through work experience, they can secure references from people who have seen them in action and can verify for prospective employers their worth as employees... To help people with visual impairments find work in the 21st century, service providers must educate them about employers’ needs.

Vocational training is about more than just the discrete skills required for a particular job; it covers a broad range of skills, achievements, and experiences that will take applicants from their first job to their ultimate career goals in an increasingly global and technological marketplace.”
(pp110-113)

It is not only students with special needs who believe work experience to be of key importance in starting their careers. In the SCRE's research into the value and importance of life skills in the curriculum in mainstream settings conducted by Powney and Lowden (2000), responses were noted to be similar, irrespective of students' educational level or home area. Their findings showed that the 200 students stressed the importance of communication and interpersonal skills for all aspects of life and also emphasised the need to possess critical thinking and problem-solving skills. They believed that work is the most important form of experience to develop these transferable life skills. *“Indeed, work experience was seen as a more valuable source of skills than formal education.”* (p2)

The staff at the centres taking part in the pilot courses all expressed the hope that by inviting representatives of locally-based companies to run a short workshop session with their students, channels for further involvement would be opened up - most especially offers of future work placements and industrial visits. Opportunities to be in a place of work, interacting with staff at different levels, being subjected to workplace disciplines of time-keeping, security procedures and dress codes and having their perceptions about the actual content of some jobs challenged was felt to be vitally important in helping sensorily impaired students prepare for the transition to employment or planning progression routes through Further and Higher Education.

5.2Data Collection

As has been explained in the chapter on the methodology used in this research, the actual structure of the questionnaires issued to participants was modified slightly during the course of the project to enhance the relevance and potential influence of the data collected. Although this was felt to be justifiable and desirable, it meant that a straightforward statistical analysis of the responses would not be possible. Instead, the students' responses have been analysed by themes and trends that are discernible on the questionnaires and also

from the informal discussions that took place during the course of each programme.

It also has to be remembered that the content of individual programmes varied (both in terms of content and delivery) and this could be expected to impact on the degree in change of opinion to some questions. For example, if a programme had not included a ‘Small Business’ session, students’ attitudes to wanting to run their own business could not be expected to have been challenged or changed significantly during the course.

Students’ Questionnaires: A total of 132 students took part in the programmes and 116 pre- and 113 post-course questionnaires were returned (shortfalls being accounted for by authorised absence for the corresponding part of the course and those not saved from the second programme for visually impaired students, as explained in the chapter on case studies. The difference of three in actual returns pre- and post-course are due to the abandonment of the course for hearing impaired students described in the case studies). The students’ ages ranged from 13 to 59, although the great majority were in the 17-22 age band. Courses and levels being studied varied from one student about to start his GCSEs to another studying for a Masters degree, but the majority were on NVQ or GNVQ programmes of different kinds. 70 students were studying economics or business studies in some form.

Probably the most gratifying outcome was the huge shift students acknowledged in their opinion and understanding of the business world. When responding to the statement “I have a positive opinion of the business world” there was a shift from 47 who agreed or agreed strongly and seven who disagreed or disagreed strongly to 79 and none respectively. Similarly, “I understand the business world” initially scored 45 positive responses and 28 negative, which later changed to 79 and nine.

Shifts in ambitions to work in business or industry showed a less dramatic, but nonetheless observable, shift towards the positive and perhaps, more significantly, a reduction in those who were not sure. When it came to wanting to run their own business, there were no significant changes in those who were considering the option, but a small shift away from definitely not wanting to to being unsure. A contributing factor to this was probably the result noted in a couple of the programmes where - having been given the opportunity to consider the skills and aptitudes needed to run a successful business - some students had found the option less attractive.

Only eight people had a low opinion of the text book but, as the case studies show, some students had not received them in time to use them effectively, so there is a distinct possibility that some respondents were simply being polite. 95 students expressed a positive or very positive attitude to having taken part in the course and only four expressed definite reservations.

Responses from the seven centres using the doubly-modified questionnaires (71 respondents) showed only two students found their course neither interesting nor useful. 18 were not sure of the value of course in contributing to their school or college coursework, but 46 felt positively or very positively about this. Similarly, 15 definitely felt the course had influenced their career aspirations, 22 agreed and 25 were not sure. The number of students who would recommend such a course to others followed a similar pattern.

Probably the most significant question for tutors and session leaders was framed in the statement "I found it easy to understand the sessions". In the grading system of 1 signifying strong agreement through to 5 indicating strong disagreement, the responses were 1:11 2:31 3:19 4:8 5:2. This is a pleasing response, given the time and effort that had gone into modifying materials and resources, preparing participants and providing support during the sessions. There has to be some caution, however, in accepting these scores at face value for two reasons.

Firstly, as with the responses to the value of the text book, there is a possibility that some students may have wanted to 'give the right answer' and not offend contributors by saying that they struggled with the sessions.

Secondly, it is possible that some students may have had more difficulty than they were willing to acknowledge because they were afraid of being thought stupid. Such an attitude is by no means confined to students with sensory impairments: most teenagers are reluctant to admit they have not understood something, and it is possible (although we cannot be certain or test this) that students on these courses were eager to make a good impression on potential placement providers or employers. This danger is probably most acute in the setting of centres for hearing impaired students following an oral philosophy as there is perhaps more pressure for students to demonstrate receptive and expressive linguistic competence in spoken English. Possibly one of the best articulated responses to this issue was offered by a boy on the first course for hearing impaired students:

"I have to admit that before the course started I wasn't keen but willing to have a go and now I'm glad I did as it was worth the while experience. It would benefit us greatly especially with deaf people. There were difficulties in communication with some people from the companies but we managed to overcome it which gave us a valuable lesson about the future." (Barry, aged 17)

Despite these reservations, the picture painted is probably more accurate than not. Even if half the students overstated their agreement by one grade, the responses would be 6, 21, 25, 13 and 6 respectively, which should still be regarded as a gratifying outcome.

Many of the comments made by students have been included in their centres' case studies. In addition to their written comments, there were 'off the record' statements made to the researcher, session leaders and tutors as the courses progressed. As with the written feedback, many observations related to employment opportunities and the much wider scope for employment than had originally been considered. Of particular interest was the revelation that IBM employed several visually impaired people at a high level and that people with sensory impairments could be active planners and decision-makers in the workplace.

With regard to previous exposure to 'the world of work', most students had undertaken some form of work experience within the past couple of years. This varied from the adults who had recently lost their sight and had previously followed conventional career paths to pupils who had been placed for short periods with local companies under the supervision of their schools and colleges. In the latter case, discussions with staff established that placements had not necessarily been linked to career aspirations, but had generally centred more upon developing an awareness of workplace etiquette - familiarising students with a daily routine that was longer than an educational one, dealing with adults as colleagues, recognising hierarchies, accepting unfamiliar procedures and dress codes, independent travel and so on. (An exception to this was the 'second' centre for hearing impaired students which helps set up placements in students' home areas during the summer vacations to match their interests and to integrate them into their local working community.) Although these issues can be challenging to any young person entering a workplace for the first time, it is especially so for one used to the secure environment of a special school or college, with supportive staff

and peers who understand access and communication needs and where essential transport is generally provided.

The earlier questionnaires had not addressed this topic specifically, but tutors had been asked about students' prior experiences during the planning stages of the courses and students were invited to add details of previous links with industry to their questionnaires.

Of the 84 students who supplied such information, 70 had undertaken at least one work experience placement, some during their current course and others at their previous school. Retail, office work/computers and childcare were by far the most popular placements but the full range included motor vehicle maintenance, gardening, tourism/hospitality/leisure centres, warehousing, gardening, cleaning, kennel work and hairdressing. Some placements were carried out on-site, acting as classroom assistants with younger pupils, helping in the office or working alongside ancillary staff.

Only 21 had any experience of paid employment, some of them the older students at centres for the visually impaired who had lost their sight more recently, but some of the younger students had done part-time paper rounds, window cleaning or worked in the holidays in various settings.

22 said they had taken part in Young Enterprise programmes and six said they had been involved with mini-enterprises (it is possible that these two terms were confused by some students, although most had help from their tutors in completing the questionnaires and therefore should have been clear as to the difference).

35 had been on industrial visits and 47 had attended a talk of some kind on work-related issues in school or college.

Tutors' and Session Leaders' Questionnaires: Responses from tutors and session leaders have largely been covered in the chapter on case studies. On the whole, the tutors involved with the planning and/or supervision of the courses were conscientious about returning their questionnaires and several included a letter with additional comments. 83 session leaders (in addition to UI personnel and staff from the centres) took part in the twelve courses. They were less forthcoming in terms of completing their questionnaires but, because of the commitment they had already made in terms of time and energy, only one

reminder was sent to try to elicit a formal response.

There are a couple of possible reasons for this difference. Teachers are perhaps more used to planning, implementing and evaluating using set formats; although an 'additional' curricular activity, they associated the courses with the students' school or college activities and so regarded the request for evaluative feedback as routine.

Session leaders, on the other hand, undertook the activity very much as an addition to their normal role. Although related to their area of work, it had no direct impact on their everyday jobs and once the session had been conducted it assumed little relevance in their work situation. The questionnaire could be viewed as just one more non-essential request impinging on their time. However, virtually all the session leaders gave spontaneous, verbal feedback immediately after their session. Some felt that they had pitched the level of their presentation too high; others felt they had not met the needs or expectations of the students. On the whole, though, they found the experience to be extremely positive and admitted they had enjoyed the experience far more than they had anticipated. Their disability awareness had been raised and they were now motivated to find out about the numbers of disabled workers employed by their companies and the range of work undertaken. Those who were dissatisfied with their sessions expressed a desire for a 'second chance' by participating in future courses or developing other links with the centres. Most said they would investigate opportunities for work experience placements or industrial visits to their premises. A common theme in both verbal and written feedback was the value of the training workshops: those who had attended felt it had helped them prepare appropriately and those who had not taken part wished they had.

5.3 Implications

Although each course was free-standing and tailored to meet the needs of a particular population in a specific institution, there are trends that can be discerned and which could be applied in other situations.

The first observation concerns the composition of the student groups. Although the basic format could be applied to students on a range of courses, in a variety of settings and with different backgrounds, the research shows a strong indication that there must be a degree

of cohesion amongst the students over and above their shared disability or centre of study. Particularly in three of the four centres for visually impaired students, it was clear that the wide age range presented impacted detrimentally on the overall success of the programmes. Participants who were up to a generation older than some of their colleagues had more experience of both the theory and practice of the world of work. They were more likely to have acquired their disability more recently and to therefore still be coming to terms with a severe, unpredicted life change that was not generally the case with the younger students. Although not deliberately disruptive, these older students tended to inhibit the session leaders and to dominate discussions and regarded many of the simulation activities as puerile (despite reassurances that these were often based on exercises used in management training programmes). Interestingly, the age range seemed to impact more on the smooth execution of a programme than the levels of attainment or range of vocational interests represented in the groups.

It would therefore seem advisable to establish a specific age band. UI courses were initially intended for 16-19 year olds, that is, those in sixth form centres or further education colleges. As has been explained earlier, this was relaxed in the case of students with sensory impairments because of possible delayed or interrupted progress related to their disability. Taking these two factors into account it would probably be reasonable to set an upper age limit of 25 for this particular type of programme. Interestingly, in the first course run for visually impaired students (where the oldest participant was 25), the younger members of the group did not seem to be in anyway handicapped by their relative lack of experience, especially when it is remembered that the prize for overall best student in fact was awarded to the 13 year old.

In addition to forming a fairly cohesive age group, it was also seen to be important for students to feel comfortable with one another. Even students based at the same centre were not necessarily used to working with the other individuals on these courses. The introductory session and/or preliminary industrial visit not only introduced the blueprint for ensuing sessions, it also enabled students to get to know each other quickly and informally as they pooled their ideas and observations. It can be seen that several students felt that working with other people had been a major advantage of the course and had helped them develop communication and social skills quickly and effectively.

The programmes included theory and practice that gave opportunities for key skills (a

pre-existing element in GNVQ programmes) to be developed at a time they were being introduced into the mainstream curriculum for all students. Virtually every session encouraged the use of diverse methods of communication, application of number, problem solving, evaluation of their own learning and assessing the implications of information and communication technology in a variety of settings.

To be effective, the course content had to take account of the interests and experiences of the students and they needed an opportunity to prepare for the various elements. In the case of industrial visits, this can be seen in the change from indifference to interest by students from the second 'deaf' course regarding a visit to large supermarket. Their prior knowledge of what happened in a supermarket made the additional information about careers and work practices easier to absorb and added significantly to their previous understanding. However, in the case of the group visiting York Station, they were unclear as to why they were there and the additional difficulties encountered in terms of staff distractions, poor acoustics and little visual stimulation prevented this from being as successful as other visits. In a similar vein, sessions needed a flexible structure in order to adapt when students were not understanding the content or expectations as with the Marketing session in the North West or the paper aeroplanes exercise in Sussex. A major problem had been getting the modified text books to the students before the course so that they had some idea of what to expect in terms of subject and vocabulary. In some instances this was the fault of UI not having materials ready for dispatch at an appropriate time and in other cases it was lack of awareness on the part of centre staff as to what or who the materials were for. In nearly all cases, this was commented upon by the tutors as something they would rectify if another course were to be run.

As has already been mentioned, time spent preparing session leaders was valued by both sides. Although it meant additional preparation, staff, time and resources on the part of the centres and time and reorganisation of their own workload for the session leaders, there can be no doubt that the effort paid off. The sessions which might be deemed to have been less successful or where the session leader felt they had not met the students' needs were invariably those where the session leader had been unable to attend the workshop. Although many found the wealth of information about sensory impairment and communication needs daunting, it enabled them to structure their presentations in ways the students found stimulating rather than overwhelming. Many session leaders said they felt sorry for those who had not been able to attend and those who had missed the sessions said they would

make it a priority if the opportunity arose again in the future.

A major outcome has to be the level of disability awareness engendered in the session leaders (and, indirectly, the organisations they represented). Many commented that they held quite stereotypical views about the employability of people with sensory impairments prior to their participation in the courses and many had believed simply that deaf people couldn't hear anything and blind people couldn't see anything. Realising the gradations of sensory impairment and the impact of technical support, teaching methods and communication approaches gave them a more open view of the potential of these youngsters and made them question the low numbers of employees within their own organisations with sensory or physical impairments.

This process was definitely a two-way trade, with the students realising that they possessed the skills and capabilities looked for by a variety of employers. Several said that they would now seriously consider a wider range of potential occupations.

The aim of developing long-term links between the centres and local industry seems to have been achieved, although a follow-up study would be necessary to confirm this. Certainly, as each course ended, tutors and session leaders were considering ways in which the relationships could be developed. The most obvious paths were through work placements and industrial visits, but mentoring schemes, sponsorship and utilisation of mini-enterprise schemes were other possibilities.

Finally, a major consideration has to be the methods employed to monitor such activities. Although using different materials to gather data renders meaningful statistical analysis nigh on impossible, (especially when not all requested information is supplied) it has to be accepted that in many ways each course represented an autonomous research project that just happened to bear similarities to some of the others in progress. If this attitude is adopted, it can be seen that, in fact, the descriptive analysis of each case study is actually of far more value than artificial comparisons and consolidations of all twelve. Embedded in the accounts of the twelve pilots is the message that yet further permutations are possible and the successful twin achievements of raising students' perceptions about modern industry and broadening employers' awareness of the employability of people with special needs should take priority over the application of rigid formula for quantifiable analysis.

CHAPTER 6: CONCLUSIONS AND APPLICATIONS

6.1 Introduction

The case studies and discussions in the previous chapters have shown the relative lack of access to education-industry links programmes by students with special needs (specifically, those with sensory impairments), some of the reasons for and implications of this, and ways in which the issue can be effectively addressed. It is recognised that the case studies may be considered as being context-specific, but it is hoped that much of the experience and understanding gained by all parties involved will facilitate the dissemination of good practice into other settings.

This concluding chapter will allow the main outcomes of the research to be summarised and considered in the wider context of legislation and government educational policy changes that occurred during the research period.

6.2 A Review of the Context

The research centred on students attending special schools and colleges catering specifically for the needs generated by their sensory impairments. Although most of these students had some experience of work placements on employers' premises, other forms of business/industrial links were scant and so the programmes run for this project were pilots for both the organising charitable body, Understanding Industry, and the centres themselves.

There was some concern during the planning stages that this represented a small sample of a small constituency, but it was also felt that by concentrating on devising and running effective programmes in these settings, significant findings might be generated which could later be disseminated and applied more widely: that is, in integrated and mainstream settings and with students presenting a wider range of special educational needs.

Of all children with disabilities or learning difficulties, deaf pupils have traditionally been the most likely to be educated in mainstream schools. This is partly because the range of possible hearing loss means that many deaf pupils with moderate to severe hearing losses

using appropriately fitted hearing aids and receiving additional support could cope in such a setting. A further factor is the development of excellent LEA Support and Advisory Services which provide peripatetic Teachers of the Deaf to give appropriate levels of support to both deaf pupils and their teachers in mainstream schools. This successful integration is now providing a model for the inclusion of pupils and students with other special needs, in line with government policy.

However, to have used this group as the basis for the study would have introduced a multitude of random factors: physical adaptations made (or not made) to the mainstream building; level of support received from visiting Teachers of the Deaf; specialist staff employed by the school/college to support these students; prior experience of deaf students; awareness and attitudes of hearing peers and so on. By concentrating on a population that was relatively isolated and had the needs generated by their disabilities addressed to maximum effect, a more detailed picture was compiled of the adjustments needed to run these programmes to benefit all participants and provide the students with an experience that was genuinely comparable to that of their mainstream counterparts. It is hoped that what has been learned from these pilot studies can be extrapolated and applied in other contexts to ensure students with special needs can participate fully and effectively.

6.3 The Changing Context

As discussed in the introductory chapter, this research commenced as a Labour government took power for the first time in 18 years and pledged its support for wide-ranging educational reforms. Returned for a second term in 2001, its drive for inclusive education led to the passing of the Special Education Needs and Disability Act 2001 (SENDA), the White Paper, 'Schools Achieving Success' in the same year and, arising from that, the Green Paper, '14-19: extending opportunities, raising standards' issued for consultation in February 2002.

Current political concern has focussed upon a drive to raise standards of achievement, to increase the value placed on education by students, their families and professionals and to facilitate the inclusion of all pupils/students in mainstream settings if that is their wish and that of their families. The main purpose of these reforms has been to raise Britain's standing alongside other industrial countries and it is felt that the relatively low proportion of students

remaining in education and training beyond the compulsory period has been thwarting this aim.

Whilst few would argue with the benefits of developing a well-educated, motivated workforce, both to the national economy and to individual citizens, many of the proposals have raised concerns amongst professionals at all levels in both mainstream and special settings.

For mainstream teachers with no prior experience of working with sensorily impaired students - and faced with the prospect of ever greater diversity and differentiation in their classes - the prospect could be understandably daunting. Initial concerns might include speculation about the need to learn sign language; the need to produce materials in braille and/or on tape; devising further differentiated tasks and regular liaison with support workers adding to an already controversially heavy workload. Even receiving support from a member of the local Advisory Team, Communication Support Worker or Learning Support Assistant could cause anxiety by making the classroom teacher doubt their own competence or feel exposed to ongoing scrutiny from a fellow professional.

At the same time, specialist teachers will have their own concerns as they anticipate a further contraction of special school provision; foresee radical changes in their workplace and professional responsibilities; expect their workload to increase as the demand for support grows in a greater variety of settings and harbour misgivings about the ability of even the most committed mainstream teacher to address the needs of a deaf or blind pupils in a mixed ability mainstream class.

Taking a more positive view, whilst these concerns are valid and highlight the need for environmental adaptations and staff training, inclusion could be seen to offer an opportunity for a spectrum of provision to develop which a pupil/student would access in different ways to meet their personal needs as they move through the educational system. At one point they might be exclusively educated in a special school or wholly taught in a mainstream environment, but the degree of support and length of a placement could vary. The Advisory/Support Services for Sensorily Impaired Pupils will need to be responsive, adapting the support offered to individuals to meet specific, changing circumstances. Special schools may be called upon to offer advice, expertise or staff development sessions to neighbouring mainstream schools; teachers in resource units may find an increased demand for

staff training from their colleagues and may be approached by other schools in the area. It is logical to assume that there will be an increased demand for peripatetic specialist teachers to support individual children and more opportunities for Communication Support Workers to become involved at all levels of communication which, in turn, has implications for the recruitment and retention of such staff.

As SENDA comes into force from September 2002, mainstream schools and colleges will be obliged to make anticipatory adjustments to facilitate the enrolment of disabled students and to make reasonable adjustments to meet individual needs. At the same time, the consultative document, '14-19: extending opportunities, raising standards' proposes a flexible system of academic and vocational education to be developed over the next five years, offering opportunities for a traditional, general curriculum, a more specialist vocational path or a mixed package.

This is an interesting proposition for the student population considered in this research. It is hoped that the flexibility and variety will encourage students not conventionally inclined to remain in education beyond the compulsory age of 16 or to follow more than a basic curriculum to do so and for identified vocational interests to be developed from an earlier age in appropriate settings. The likely modularisation of many courses will enable students to pace their studies and achievements to meet specific communication or practical needs. To support the variety of courses offered and ensure quality of provision, students from the age of 14 may study at school, college or in the workplace to varying degrees and, at 19, a matriculation diploma summarising their achievements (including extra-curricular activities) will be awarded if certain criteria are met.

These proposed changes have a lot of advantages for sensorily impaired students by allowing for a broader-based individual timetable in a variety of settings and utilising varied teaching methods. One reservation has to be, however that they may find themselves 'encouraged' into what are perceived as more practical subjects to overcome difficulties they may have with spoken or written elements on the more traditional courses. Whilst many such students and their families would welcome the opportunity to adopt a more 'hands on' approach to study and to drop subjects which may have inherent difficulties (such as modern foreign languages for deaf students), it is possible that they may not be fully challenged to realise their full potential by tackling these subjects.

Another problem raised is that of the location of 14-19 studies. In theory, the main aims of education-industry links programmes would be effectively addressed if students could undertake part of their studies on employers' premises or in the more mature environment of a well-equipped college. The opportunity to study for some of the time off school premises would, it is to be hoped, remove some of the anxiety of an abrupt transition at 16 or 18, reduce naivety about the wider world and develop confidence in dealing with non-specialist staff. However, DDA and SENDA notwithstanding, the proposal that pupils/students may study in schools, colleges or workplaces in various combinations raises questions about the ability to provide suitable, consistent support in these diverse settings and the appropriateness of non-school premises for the acquisition of new knowledge by students with communication difficulties. Interaction with strangers can be a major concern for students with special needs; at the traditionally insecure time of adolescence, they become particularly aware of communication issues and self-conscious about any 'special' arrangements they feel may draw attention to them. It is not just the course content which presents problems, but the whole environment: moving to a college setting at 14, with additional personal responsibilities of negotiating the canteen, student lounge areas and mixing with people physically larger and chronologically a lot older can be extremely stressful - and similar issues arise in a workplace setting.

After the consultation period, it is likely that the bulk of the proposals for reforming secondary education (and impacting on traditional tertiary provision) contained in the Green Paper will be implemented over the next few years. Despite reassurances that vocational courses will have parity with the more traditional subjects, attitudes of parents teachers, careers advisers and employers may take time to change and resistance to the new 'mix and match' timetables will need to be overcome. The new curriculum would seem to be flexible and able, in theory, to truly meet the interests of individuals. This will not be the case, however, unless suitable funding and resourcing is made so that the wider curriculum is available to every student, irrespective of location, special needs, regional demographic factors or family circumstances. Colleges and workplaces need to be made aware of the full implications of having sensorily impaired students on site and to be supported to make these experiences meaningful and successful for all parties.

It is to be hoped that the nationwide introduction of the Connexions service (replacing existing careers services and providing every young person with a Personal Advisor) will meet its aim of providing young people with impartial advice, guidance and support. There

is, however, a danger (as stated above) that students with special needs may be encouraged to take courses that are 'easy' rather than 'appropriate' for them. Once again, the issue of professional competence and experience in dealing with students with special needs is raised. It is to be hoped that Connexions services will be able to recruit sufficient staff with suitable backgrounds to meet the needs of these young people and to advise and support employers who may become involved. The preparation required to run an education-industry link of a week or less for this project indicates the level of understanding and experience such professionals will need to attain and sustain in order to offer an effective service.

6.4 The Implications of the Research

As discussed in the chapter 'Findings, Trends and Issues', there were several positive, observable outcomes from the twelve pilot courses. These included the raising of industrial awareness in students; disability awareness raising for session leaders and their companies and the development of useful industrial links for teaching staff. There were other valuable lessons for the course organisers, Understanding Industry, and their sponsors.

The original belief that courses run for students with sensory impairments would involve much more time and support than a 'standard' UI course was reinforced at each venue. This had obvious implications for the staff at the various centres and also for the fund raisers at UI who would need to ensure that sufficient monies were available to facilitate the additional work and resources needed to run successful programmes of this kind.

All session leaders taking part in this type of course would need a training session similar to those described in the case studies as well as an opportunity to discuss their intended presentations with either the course organiser or a member of the centre's staff. It would also be important for the local RO to attend the workshops to facilitate future dealings with the centre and the recruitment of new session leaders to participate in further programmes of this kind.

The funding of such courses, as implied above, would be a major concern. Mainstream centres were charged a flat rate contribution of £100 for up to 32 students to have a course run on their premises and for every student to receive a copy of the text book and a certificate of participation. Session leaders were drawn from a constantly updated pool

of volunteers from local companies who attended a training session on UI's philosophy, course structure and session content. The actual cost of running a conventional course would be in the region of £800 and this sum would be acquired through sponsorship for a specific course from a supportive company, non-specific donations to UI by major supporters and/or additional funding from government agencies or non-governmental bodies.

This formula would be difficult to apply when working in the context of special schools or even in inclusive mainstream settings for several reasons. In the case of the pilot studies undertaken for this project, a sum of money was donated by a major sponsor specifically for the purpose of running courses for sensorily impaired students and the researcher was able to estimate the costs and therefore the number of courses able to be run. In fact, the total costs of each course were almost double those for mainstream programmes when the additional preparation time, modification and production of materials, recognition of staff expertise and reimbursement of travel expenses were calculated. However, the courses were run for much smaller groups than would be the case in mainstream centres and so the comparative cost per student would be even higher.

The staff of the special schools and colleges played a far greater role in the preparation of the courses than would normally be the case, both in terms of numbers and time. They advised on modifications to the text book and the content of sessions, suggested local contacts, organised and ran a large part of the disability awareness training workshops and supported the courses in progress by acting as scribes, interpreters and mini-bus drivers. Given this level of input, the low numbers of students taking part and their own fund raising and financial pressures, it seemed unfair to expect these centres to also contribute financially to the courses. For future events it would be necessary to secure discrete sponsorship from sympathetic organisations to meet either the full costs of individual programmes or for specific aspects of the project (as with Barclays Bank's sponsorship of the audio text book).

It is clear that it would be impossible to run such programmes 'on the cheap' even at centres which had hosted successful courses previously or with session leaders who had taken part in a 'special' course. Both money and time would have to be invested in any future projects, particularly in producing suitable materials and training session leaders. There is little likelihood that costs would be significantly reduced for courses to be held in inclusive settings, since the same levels of differentiation of materials and disability awareness training for session leaders would be necessary.

Notwithstanding the very real issues surrounding the funding of such courses, it has to be recognised that there were tremendous benefits gained by several parties. The volunteers from locally-based businesses have been seen to have contributed a great deal of time and thought to giving the students a worthwhile experience. Although they received no payment for their involvement, the repeated sentiment that they gained a great deal personally and professionally from taking part shows that the effort put into the training workshops and the chance to work with students with low-incidence disabilities was of great value to all concerned. Not only were they able to make an effective contribution to the course, their attitudes to their own work, workplaces and work practices were positively affected.

Finally, the major benefit has to be that of the opportunities offered to and taken by the students. Many of their tutors were initially sceptical about the students' ability to cope with the challenges the courses would present in terms of communicating with strangers, working in teams, absorbing unfamiliar vocabulary and so on. They were equally sceptical about the ability of inexperienced managers to run informative and involving activities in a way the students would find meaningful. It was in large part due to the researcher's personal experience of working with students with special needs that these objections were overcome and negotiations proceeded beyond the initial consultation. The students themselves showed only a hazy notion of commerce, business or industry at the start of the courses and their candid responses in the post-course questionnaires probably are more honestly indicative of this than the answers given before the course started: they seemed genuinely surprised at their ability to cope with the new experience and expressed their interests and observations very clearly.

6.5 Sharing and Extending Good Practice

If no further action were taken after the twelve pilot courses had been run (which, happily has not been the case), it could still be said that there had been long-lasting benefits:

- The staff in the various centres had increased their database of companies willing to provide vocational placements and develop other forms of education-industry links. They had a clear demonstration that their students could cope with the demands of working in a flexible way, work in teams, communicate with strangers and evaluate the

relative value of different activities to their own lives and aspirations.

- The session leaders clearly had many preconceptions about disability issues challenged and took this new awareness back into their own organisations, thus hopefully bringing about positive changes in the culture of the workplace.
- Understanding Industry gained useful experience in working with a new client group and was provided with an opportunity to consider future strategies in this field and the implications of working in increasingly inclusive settings.
- The participating students had a positive experience, gained greater knowledge of the world of work and the potential role they could play in modern industry and commerce. They gained a certificate to add to their National Record of Achievement and demonstrated accreditable key skills.

It is worth reiterating at this point, Bassey's (1999) commentary on action research, cited earlier in the introductory chapter of this work:

"...successful action research is often recorded only in the memories of those who participated. They know, and are wiser because of knowing, what was the outcome of the change in their workplace - but the rest of the world may not be given the chance to share the understanding," (p42)

However, in this instance, there are opportunities for these benefits to be shared and introduced into other settings without necessarily running formal programmes under the auspices of either UI or any other dedicated organisation.

Firstly, schools and colleges do not have a static population of either students or staff. Teachers changing jobs will take their experience with them and - since responses were very positive - are likely to want to introduce at least some of the elements into courses they are involved with at their new centres and be confident about doing so. Similarly, the students, moving on through the educational system or seeking employment, will increase awareness of the courses and create further demand or offers to participate.

Secondly, the session leaders, in influencing the culture of their workplace will create

opportunities to forge links with other centres and to increase the likelihood of disabled employees being both recruited and encouraged to develop meaningful career paths.

Again, these benefits would stand alone and be considered laudable but do not show the whole picture. It is to be hoped that the publication and discussion of elements of this research will encourage the development of education-industry links provision for students with a wider range of special needs and in more varied settings. This may be undertaken by specialist agencies such as Understanding Industry or by teachers adopting one or more of the case studies as a model to develop their own in-house programmes. In either case, it is likely that a major advantage will be in providing templates for developing such links in inclusive settings.

As has been discussed, whilst there will continue to be a full spectrum of provision available for students with special needs, it is likely that the majority will spend most of their time in mainstream settings with (it is to be hoped) appropriate support. Concurrently, most of the proposals outlined in the 14-19 Green Paper are expected to come into force, opening up the range of courses and settings in which they can be undertaken.

Education-industry links are likely to become a central feature of the mainstream curriculum, rather than an embellishment delivered through the PSHE programme. In this case, the lessons learned about the importance of running appropriate disability awareness training for those working with students with special needs will be an essential element in ensuring the effectiveness of the new vocational and mixed curricula. This may be undertaken by Connexions, the student's 'host' school/college or by another agency as part of a wider service (for example, Young Enterprise establishing a partnership between a school/college and a local company).

For students following a more traditional academic course in the 14-19 phase, an appreciation of modern commerce and industry will remain vital preparation for effective transition planning and careers education, and UI-style courses will still have a key role to play in delivering this. In the inclusive setting this may well generate a demand for a hybrid course, running very much to conventional patterns but with elements of the 'special' courses incorporated. For example, differentiated materials may be needed, resources may have to be modified or transcribed into alternative formats, delivery of information may need to be adjusted to accommodate their needs and session leaders will need to be appropriately

prepared for the needs presented in the groups. It should also be recognised that groups may contain students with more than one form of disability or special need: it is conceivable that in an inclusive setting one class may have a deaf student, one student who is dyslexic and another with Down's syndrome. In order to run effective programmes, it will be necessary for the centre to either run awareness programmes in-house to prepare visitors for the implications of this situation or to call upon the local support and advisory services to carry out the role. It would be hoped that at least some of the experience gained from the case studies would help shape these programmes and relieve some of the unease that is bound to be generated by a seemingly ever-changing educational system.

Most importantly, it is hoped that this project will be regarded as having provided the starting point for the future development of education-industry links programmes for students with special needs, rather than being an exclusive, definitive description of a short-lived experiment.

GLOSSARY OF TERMS AND ABBREVIATIONS

ATO	Accredited Training Organisation: a body with responsibility for the administration of a particular Youth Training Scheme
Briefcase exercises	A collection of activities collated by Understanding Industry to assist in the planning of practical elements of sessions
BATOD	British Association of Teachers of the Deaf: a professional association for those working with deaf pupils
CACDP	Council for the Advancement of Communication with Deaf People
CBI	Confederation of British Industries
DDA	Disability and Discrimination Act 1996: made it an offence to discriminate on the grounds of a disability in the provision of goods or services, employment or access to facilities
DELTA	Deaf Education Through Talking and Listening (formerly the National Aural Group): an association of parents, teachers and other professionals promoting a natural oral philosophy in the education of deaf children
DfES	Department for Education and Skills (formerly the Department for Education and Employment and previously the Department of Education and Science)
EBP's	Education Business Partnerships: regionally based organisations supporting a variety of initiatives; replaced by the LSC
ESRC	Economic and Social Research Council

FE	Further Education: provision for study beyond compulsory education (ie age 16) which may be offered in a sixth form centre attached to a school, a sixth form college offering courses to 16-19 year olds or FE/tertiary/community colleges
FEFC	Further Education Funding Council: the body responsible for funding post-16 education at the time this research took place; replaced by the LSC
FYD	Friends of the Young Deaf: a national organisation promoting integrated activities for deaf and hearing young people
GNER	Great North Eastern Railways: the main operator on the eastern side of Britain running services from London to Scotland
HE	Higher Education: advanced study at degree level or beyond, offered by universities and colleges
HI	Hearing impaired: a generic term covering the full range of hearing loss, including descriptive categories such as hard of hearing or partially hearing through to clinically established classifications such as profoundly deaf
LSC	Learning Skills Council: national network responsible for funding of post-16 education and training and education-business partnerships from 2000
NATED	National Association for Tertiary Education for Deaf People: a professional organisation for those working in the post-16 sector with hearing impaired students
NATSPEC	The Association of National Specialist Colleges: a membership organisation of colleges offering appropriate, high quality education and training for people with learning difficulties or disabilities.

NDCS	National Deaf Children's Society: a national charity offering support, advice and advocacy services to the families of deaf children
NVQ	National Vocational Qualifications: work-based qualifications related to specific industries offering recognition for vocational competence at progressive levels
PSHE	Personal, Social and Health Education
PYBT	The Prince's Youth Business Trust: a charitable organisation initiated by the Prince of Wales to help young people set up small businesses; later known as the Prince's Trust
RNIB	Royal National Institute for the Blind: a national charity offering advice, education/training and rehabilitation to visually impaired people
RNID	Royal National Institute for Deaf People: a London-based charity offering education/training, support, advice and education on all matters affecting hearing impaired people
RO	Regional Organiser: member of Understanding Industry's team working on a self-employed basis and responsible for developing courses in a given geographical area
SENDA	Special Educational Needs and Disability Act 2001: extends the obligations of the Disability Discrimination Act to educational establishments from September 2002
SCRE	The Scottish Council for Research in Education
SRB	Single Regeneration Budget: a source of funding for specified events or services
ToD	Teacher of the Deaf: a qualified teacher holding an additional mandatory qualification to teach hearing impaired pupils/students

UI	Understanding Industry: an education-industry links charity running courses for 16-19 year old students; later re-branded as Business Dynamics
UNHS	Universal Newborn Hearing Screening (later re-named Newborn Hearing Screening Programme): tests to detect potential hearing loss carried out within a few days of birth; further information can be found on the website www.deafnessatbirthto2.org.uk
VI	Visually impaired: a generic term indicating sight loss that would embrace all categories from partially sighted to blind/sightless
YTS	Youth Training Scheme: an initiative in the 1980's to address youth unemployment and provide vocational training for school leavers

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Appendix A:

A Typical Fax of Introduction
to a school/college

fax message

To: [Known contact at the school which hosted the fourth pilot course for HI Students)

From: Stevie Mayhook
Project Co-ordinator, Understanding Industry

Date: 29th September 1998 **Pages:** 4

Message: You may remember that we spoke at last year's NATED conference about the pilot courses UI is running for hearing-impaired students. We ran two courses in the summer term: one at [] and one at [] (programmes attached). They proved very successful and we have now had confirmation that the Lloyds TSB Foundation will sponsor three more pilots this year. Given your previous interest, I wondered whether you would like to be one of the centres involved this time.

Both of last year's courses were run primarily for GNVQ Business Studies students (Foundation and Advanced) but students could come from other vocational areas. The group should comprise around 12 sixth formers.

The format is very flexible: the previous pilots ran over two and a half days each, but we could consider a more intense programme over one or two days (although with the language and communication issues involved, I would hesitate to run it in this way); we could have one or two sessions per week during a period of a few weeks, slotting into the main school timetable.

We have modified the standard UI textbook to make the language and presentation more accessible to hearing-impaired students. This comprises a looseleaf work, with the chapters selected to match the topics to be covered on the programme (the school will also be given a copy of the standard book for staff reference). Each student will receive a certificate which can be added to their National Record of Achievement.

As this is a pilot, there is no cost to the school, but we would expect you to help in running a half-day training session for the Session Leaders involved (sample attached) and to ensure adequate facilities are available for the course (suitable room, a member of staff to support each session, ohp, vcr and whiteboard as needed).

Obviously, you will want more information, and if you contact me to let me know whether you would like to consider running a pilot course we could arrange a suitable time for me to visit you and discuss it in more depth.

Appendix B:

A Typical Letter of Introduction to a Potential Session Leader

11th March 1998

Thames Trains
Venture House
37 Blagrave Street
Reading
Berkshire
RG1 1PZ

Attention: Neil Thomas
Training & Development Department

Dear Neil

Re. UI Pilot Course for Hearing Impaired Students [venue] 9th-11th
June 1997

Further to our conversation earlier today, I am enclosing some information about our organisation and the course we are planning at [] next term. I am actually the Regional Organiser for Sussex, but we have been given a grant by the Lloyds TSB Foundation to develop two pilot courses specifically for hearing-impaired students (one at [] and another in []); as I am a qualified, practising Teacher of the Deaf, I have been asked to co-ordinate the project.

I am enclosing a copy of the UI text book, background information about UI and Session Leader guidelines. The book is being re-worked into a modular, loose-leaf format to make the language more accessible; however, I thought you might find it of interest. The sessions are not intended to be lectures: the recommended format is a brief personal career history; an overview of the company and your role within it and a practical activity that demonstrates some of the issues and skills needed in that field. I am also enclosing some sample activities to give an idea of the 'pitch and pace' of the practical exercises but, again, the actual materials used will have to be drafted to be user-friendly to hearing-impaired students (either myself or the tutors will be happy to help with this). Some Session Leaders like to use the UI exercises on the basis of them having been tried and tested in the field, whilst others prefer to adapt them or substitute them with materials they have developed elsewhere. The important factor is that the students are actively involved in a relevant activity for a large portion of the session with an opportunity to discuss their findings.

The group will comprise 9-10 students, aged 16-19 and studying for the GNVQ Advanced Level in Business. To help Session Leaders prepare for their presentation, a training workshop will be held at the school on **Wednesday 3rd June, 4.00-6.30pm**. This will include a brief tour of

the school and then a session on 'deaf awareness' issues and an overview of Understanding Industry. As you may know, the school uses oral communication ie they do not use sign language. For the UI course, Teachers of the Deaf will be present throughout to assist with communication and generally support the Session Leaders. Radio and post-aural aids will be used by the students as appropriate. Flipcharts, ohp's and videos will be available and there is a facility for using Powerpoint.

Thank you for your interest: I do hope either yourself or somebody from your organisation will be able to take part and look forward to hearing from you shortly. If you have any queries, please feel free to contact me.

Yours sincerely

Stevie Mayhook
Project Co-ordinator

Appendix C:

**Letter to the Head in the Fifth
Course for HI Students**

6th October 1998

[sent to Head Teacher,
School which hosted fifth
course for HI Students]

Dear []

Re. Understanding Industry Pilot Courses for Hearing-Impaired Students

Understanding Industry has been running courses and conferences for sixth-formers for 21 years and we have now received sponsorship from the Lloyds TSB Foundation to pilot similar events for hearing-impaired students. Last year we ran two courses in the summer term: one at [] and one at [] (programmes enclosed). They proved very successful and we are now looking for three more centres to run pilot schemes this year and I wondered whether you would like to be one of them.

Both of last year's courses were run primarily for GNVQ Business Studies students (Foundation and Advanced Levels) but students could come from other vocational or subject areas. The group should comprise around 12 sixth formers.

The format is very flexible: the previous pilots ran over two and a half days each, but we could consider a more intense programme over one or two days (although with the language and communication issues involved, I would hesitate to run it in this way); or we could have one or two sessions per week during a period of a few weeks, slotting into their usual timetable.

We have modified the standard UI textbook to make the language and presentation more accessible to hearing-impaired students. This comprises a looseleaf work, with the chapters selected to match the topics to be covered on the programme (the school will also be given a copy of the standard book for staff reference). Each student will receive a certificate which can be added to their National Record of Achievement.

As this is a pilot, there is no cost to the school, but we would expect you to help in running a half-day training session for the Session Leaders involved (sample attached) and to ensure adequate facilities are available for the course (suitable room, a member of staff to support each session, ohp, vcr and whiteboard as needed, refreshments).

Obviously, you will need a lot more information before making a final decision, so please ring me when you have had a chance to study the enclosures and we can arrange a convenient time for me to visit you and discuss it in more depth (no obligation, honestly!).

I am enclosing some background information about Understanding Industry and a copy of last year's edition of the text book to give you a 'feel' of our work and approach. For your information, I am a qualified, practising Teacher of the Deaf (I am a part-time FE Tutor and Careers Co-ordinator at [] as well as Regional Organiser for UI in Sussex, which is why I was asked to co-ordinate the Lloyds TSB Project).

I really hope you will want to take part and look forward to hearing from you shortly.

Yours sincerely

Stevie Mayhook
Project Co-ordinator

Appendix D:

Workshop Programme for the Fifth Course for HI Students

UNDERSTANDING INDUSTRY CONFERENCE

Sponsored by Lloyds TSB Foundation

I1 SCHOOL FOR HEARING IMPAIRED CHILDREN
12TH-14TH JULY 1999

Training Day for Session Leaders
Monday 21st June 1999

10.30am **Arrivals and introductions.**

10.45am **Tour of the School.** An opportunity to see students on a range of courses in their usual working environment and some of the resources and services that are employed to help them succeed.

12.00-1.00pm **Lunch.** Rest, refreshment and a chance to talk informally with one another and school staff.

1.00pm **Deaf Awareness.** A discussion and demonstration of some of the issues relating to teaching students with impaired hearing. This will be a very practical presentation, so please feel free to raise any questions about the materials or methods of delivery you want to use in your own session.

2.00pm **Understanding Industry.** Stevie Mayhook will explain the background and work of UI, discuss the programme for the conference and have a selection of materials available to help you prepare for your own session. If you would like to discuss the appropriateness or ways of modifying your own resources for use with the students, please bring them with you.

3.00pm **Close.**

CENTRE : []
ADDRESS: []

CONTACT: [] TELEPHONE: []

U.I. CONTACT: Stevie Mayhook TELEPHONE: []

Appendix E:

Programme for the Fifth Course for HI Students

UNDERSTANDING INDUSTRY/11 SCHOOL

Sponsored by Lloyds TSB Foundation

<u>DATE & TIME</u>	<u>SUBJECT</u>	<u>SESSION LEADER</u>	<u>COMPANY/ADDRESS</u>
Monday 12th July			
1.00-1.30pm	Introduction	Stevie Mayhook	Understanding Industry
2.00-4.00pm	Visit	Ian McGuigan General Manager	Prince of Wales Hotel Lord Street, PR8 1JS 01704- 543000
Tuesday 13th July			
9.00-10.30	Health & Safety at Work	Julie-Ann McKee Health & Safety Mgr	British NuclearFuels Ltd Springfield, PR4 6XJ 01772-764680
11.00-12.30	Small Businesses	Chris Halliwell	Princes Youth Business Trust Liverpool University L69 3BX 0151-794 3197
1.30- 3.00	Marketing	Matthew Eld	L'pool Daily Post & Echo Old Hall Street L69 3EB 0151-2272000
3.30- 5.00	Customer Care/ Dealing With the Public	John Davies Regional Customer Care Specialist	J Sainsbury Bamber Bridge, Preston 01772-627762
Wednesday 14th July			
9.00-10.30	Design & Development	Dr Belinda Crook	Phillips Components Ltd Balmoral Drive PR9 8PZ 01704-226921
11.00-12.30	Management	Paul Rogers Business Management Trainee	Halifax (North West) plc 5 Piccadilly M1 1LZ7 0845-602 2710
1.30- 3.00	Human Resource Management	Adrienne Moores Personnel Manager and Terry Wilson	Boots 18-20 Great Charlotte St L1 1QR 0151-709 4711
3.30- 5.00	Summary	Stevie Mayhook	Understanding Industry

CENTRE : School for Hearing Impaired Children

ADDRESS:

CONTACT:

U.I. CONTACT: Stevie Mayhook

TELEPHONE:

TELEPHONE:

Appendix F:

Standard UI Questionnaires and Analysis Sheet

Student Name: _____ Age: _____ yrs. Sex: M F

School/College: _____

Regional Organiser: _____ Course start date: _____

Course No: _____

PART 1 (please complete this part at the start of your course)

1. I am studying: A levels Scot.Highers GNVQs GSVQs Other qualifications

2. Are you studying Business Studies and/or Economics? YES NO

3. My impression of industry and commerce is V. Positive Positive Neutral Negative V. Negative

Why? _____

4. My knowledge and understanding of business is V.Good Good Average Poor V.Poor

Why? _____

5. I am considering a career in industry/commerce YES NO DONT KNOW

6. I would seriously consider running my own business YES NO DONT KNOW

REMINDER

- Please bring your UI Course Handbook to each session.
- Please read the relevant chapter BEFORE each session.
- Please ensure you have something to write with and something to write on.
- The more you put into this course, the more you will get out of it, so:
 - MAKE THE SESSION LEADER WELCOME
 - PARTICIPATE FULLY
 - ASK QUESTIONS
 - ENJOY THE COURSE.

Thank you for completing this questionnaire. Please hand it in to your Teacher

Confidential Post-Course Student Questionnaire

Student Name: _____ Age: _____ yrs. Sex: M F

School/College: _____

Regional Organiser: _____ Course start date: _____
Course No: _____

PART 2 (please complete this part at the end of your course)

Do you agree that: Agree 1 2 3 4 5 Disagree

1. The course was interesting
2. The course was useful
3. The UI course has helped in my studies
4. The UI course will help in my choice of career
5. You would recommend the course to next year's students

6. My impression of industry and commerce is now V. Positive Positive Neutral Negative V. Negative

Why? _____

7. My knowledge and understanding of business is now V.Good Good Average Poor V.Poor

Why? _____

8. Will you now consider a career in industry/commerce YES NO DON'T KNOW

9. Will you now seriously consider running your own business YES NO DON'T KNOW

10. What in your view were the best/most useful features of the course? _____

11. What personal benefits have you gained from the course? _____

12. Have you any suggestions for improvement? _____

13. In my opinion, the Understanding Industry book is: Excellent V.Good Good Adequate Poor

14. How would you rate the course?

STUDENT QUESTIONNAIRE PRE & POST COURSE ANALYSIS

RD/AM _____ TERM _____ YR _____

No of Schools/Colleges: _____ No of Students: _____

	A Levels	Scot. Highers	GNVQs	GSVQs	Other
No: Studying					

***Impression of industry and commerce:**

	V. Positive	Positive	Neutral	Negative	V. Negative
BEFORE					
AFTER					

***Knowledge and understanding of business:**

	V. Good	Good	Average	Poor	V. Poor
BEFORE					
AFTER					

***Considering a career in industry and commerce:**

	Yes	No	Don't know
BEFORE			
AFTER			

***Consider running own business:**

	Yes	No	Don't know
BEFORE			
AFTER			

***Opinion of the Understanding Industry book:**

	Excellent	V. Good	Good	Adequate	Poor

***Course rating:**

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	Excellent	V. Good	Good	Adequate	Poor

Teacher Questionnaire on Understanding Industry Sessions

Teacher's Name: _____

School/College: _____

Regional Organiser: _____ Course start date: _____
Course No: _____

In which of the following is the UI course running?

A levels Scot.Highers GNVQs GSVQs General Studies Other

Please complete at the end of each session.

	Session Content					Session Delivery				
	Excellent	V.Good	Good	Adequate	Poor	Excellent	V.Good	Good	Adequate	Poor
Introduction	<input type="checkbox"/>									
Marketing	<input type="checkbox"/>									
Finance	<input type="checkbox"/>									
Design & Dev.	<input type="checkbox"/>									
Production	<input type="checkbox"/>									
Personnel	<input type="checkbox"/>									
Management	<input type="checkbox"/>									
Small Business	<input type="checkbox"/>									
Other	<input type="checkbox"/>									
Other	<input type="checkbox"/>									
Summary	<input type="checkbox"/>									

YES NO

1. Overall, did the students find the course interesting?
2. Overall, did the students find the course useful?
3. Overall, did the students find their attitudes to industry/commerce changed by the course?
4. Do you intend to use the UI course again?
5. Was the course value for money?
(If not - please say why) _____

	Excellent	V.Good	Adequate	Poor	V.Poor
6. How good was the UI administration and support? _____	<input type="checkbox"/>				
7. Do you have any constructive comments on how to improve the quality of the course? _____					

	Excellent	V.Good	Adequate	Poor	V.Poor
8. How would you rate the course? _____	<input type="checkbox"/>				

Thank you for completing this questionnaire.

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This questionnaire has been produced with the kind support of



Session Leader Questionnaire

In order continually to monitor and improve the quality of service we provide, I would be extremely grateful if you would take a few minutes to complete the following and return it to me as soon as possible after your session.

Name _____

Company _____

School/College _____

Session Topic _____ Date of Session _____

Regional Organiser _____

1. Were you met at reception? YES NO
2. Was the equipment requested present, checked and working? YES NO
3. Was the room large enough for the purpose? YES NO
4. Was a member of staff present at the session? YES NO
5. Was there sufficient discipline to allow you to conduct your session effectively? YES NO
6. Were the students properly prepared and receptive? YES NO
7. Were you thanked by students/teacher? YES NO
8. Would you return for future courses? YES NO
9. Are you satisfied with the way in which Understanding Industry administers and supports the courses? YES NO
10. Were you adequately briefed by UI before the session? YES NO
11. Did you have sufficient support material from UI? YES NO
12. Did you use one of the UI 'Briefcase' exercises (if so which one?) YES NO

13. If there are other people in your organisation who would also be prepared to become Session Leaders, could you please enter their names and job titles below:

Name _____ Job Title _____

Name _____ Job Title _____

Name _____ Job Title _____

14. If you have any suggestions for the improvement of UI courses/sessions - at this school or in general - would you please put your comments on the reverse of this questionnaire.

Thank you for completing this questionnaire.

Appendix G:

First Modified Questionnaires

Student Name: _____

Age: _____ yrs. Sex: M F

School/College: _____

Regional Organiser: _____ Course start date: _____

PART 1 (please complete this part at the start of your course)

1. I am studying: A levels NVQ's GNVQ's GSCE's Other qualifications
2. I am studying Business Studies and/or Economics YES NO
3. My opinion of industry and commerce is V.Positive Positive Neutral Negative V.Negative

Because _____

4. My knowledge and understanding of business is V.Good Good Average Poor V.Poor

Because _____

5. I am thinking about a career in industry/commerce YES NO DON'T KNOW

6. I would seriously think about running my own business YES NO DON'T KNOW

REMINDER

- Please bring your UI Course Handbook to each session
- Please read the appropriate chapter BEFORE each session
- Please bring something to write with and something to write on
- The more you put into this course, the more you will get out of it, so:
 - ~ MAKE THE SESSION LEADER WELCOME
 - ~ PARTICIPATE FULLY
 - ~ ASK QUESTIONS
 - ~ ENJOY THE COURSE

Thank you for completing this questionnaire. Please hand it in to your Teacher.

Understanding Industry is very grateful to the Lloyds TSB Foundation for England and Wales for their kind support of this course

Student Name: _____

Age: _____ yrs. Sex: M F

School/College: _____

Regional Organiser: _____ Course start date: _____

PART 2 (please complete this part at the end of your course)

I think that: Agree 1 2 3 4 5 Disagree

1. The course was interesting
2. The course was useful
3. The UI course has helped in my studies
4. The UI course will help me choose a career
5. I would recommend the course to next year's students
6. My opinion of industry and commerce is now V.Positive Positive Neutral Negative V.Negative

Because _____

7. My knowledge and understanding of business is now V.Good Good Average Poor V.Poor

Because _____

8. I will now think about a career in industry/commerce YES NO DON'T KNOW

9. I will now seriously think about running my own business YES NO DON'T KNOW

10. I think the best/most useful features of the course were _____

11. The personal benefits I have gained from the course are _____

12. To improve the course I would _____

Excellent V.Good Good Adequate Poor

13. In my opinion the Understanding Industry course handbook is

14. I would rate the course

Thank you for completing this questionnaire. Please hand it in to your Teacher.

Understanding Industry is very grateful to the Lloyds TSB Foundation
for England and Wales for their kind support of this course

Appendix H:

Further Modified Questionnaires

**Confidential Pre-Course
Student Questionnaire**

Student Name: Age: yrs Sex: M/F

School/College

UI Organiser Start date

I am studying: A Levels NVQ's GNVQ's GCSE's Other

My course includes Business or Economics Yes/No

1: agree strongly 2: agree 3: not sure 4: disagree 5: disagree strongly

I have a positive opinion of the business world 1 2 3 4 5

because

I know a lot about the business world 1 2 3 4 5

because

I would like a career in business or industry 1 2 3 4 5

I might like to run my own business 1 2 3 4 5

I have already had contact with business or industry through:

Work experience Yes/No

Description of placement(s):

Part-time job(s) Yes/No

Description of job(s):

Young Enterprise Yes/No

Mini-enterprise Yes/No

Visits to companies Yes/No

Speakers in school/college Yes/No

Other (you can add more information on the other side of this questionnaire)

**Confidential Post-Course
Student Questionnaire**

Student Name: Age: yrs Sex: M/F

School/College

UI Organiser Start date

1: agree strongly 2: agree 3: not sure 4: disagree 5: disagree strongly

The course was interesting 1 2 3 4 5

The course was useful 1 2 3 4 5

The course has helped my school/college work 1 2 3 4 5

The course will help me choose a career 1 2 3 4 5

I would recommend the course to other students 1 2 3 4 5

I have a positive opinion of the business world 1 2 3 4 5

because

I now understand the business world better 1 2 3 4 5

because

I would like a career in business or industry 1 2 3 4 5

I might like to run my own business 1 2 3 4 5

The UI handbook is useful/interesting 1 2 3 4 5

I am glad I took part in the UI course 1 2 3 4 5

I found it easy to understand the sessions 1 2 3 4 5

I think the most useful parts of the course were

To improve the course I would suggest

Other comments:

Analysis of Pre- and Post-Course Student Questionnaires

School/College

Start	End	No of Students	Age Range
-------	-----	----------------	-----------

Students studying:	A Levels	NVQ's	GNVQ's	GCSE's	Other
--------------------	----------	-------	--------	--------	-------

Students studying Business or Economics

1: agree strongly 2: agree 3: not sure 4: disagree 5: disagree strongly

I have a positive opinion of the business world	1	2	3	4	5
Pre					
Post					

I understand the business world	1	2	3	4	5
Pre					
Post					

I would like a career in business or industry	1	2	3	4	5
Pre					
Post					

I might like to run my own business	1	2	3	4	5
Pre					
Post					

The course was interesting	1	2	3	4	5

The course was useful	1	2	3	4	5

The course has helped my school/college work	1	2	3	4	5

The course will help me choose a career	1	2	3	4	5

I would recommend the course to other students	1	2	3	4	5

The UI handbook is useful/interesting	1	2	3	4	5

I am glad I took part in the UI course	1	2	3	4	5

I found it easy to understand the sessions	1	2	3	4	5

Session Leader Questionnaire

Name: Company

School/College

Session Topic Session date

UI Organiser
(Please feel free to make additional comments overleaf)

Was the venue accessible (location, parking, reception etc)? Yes/No

Was the room suitable for your purpose? Yes/No

Were appropriate resources/materials available and in good order? Yes/No

Was a member of staff present throughout your session? Yes/No

Were the students adequately prepared for your session? Yes/No

Were there any problems with discipline or motivation? Yes/No

Were there any difficulties with communication? Yes/No

Were there any difficulties with physical mobility/dexterity? Yes/No

Had you visited/spoken to the tutor before your session? Yes/No

Were you thanked by the students/tutor? Yes/No

Would you take part in future courses at this venue? Yes/No

Did you feel you were adequately briefed by UI about this course? Yes/No

Did you use/adapt any of the UI Briefcase exercises? Yes/No
(Please state which, and whether you felt it was successful)

.....
What advice would you give other Session Leaders going to this venue?
.....

.....
Please give details overleaf of any colleagues who might like to become UI Session Leaders

Name: _____

Course start date UI Organiser
(Please feel free to make additional comments overleaf)

Which area of the curriculum was the UI course linked to?

A Levels GCSE's NVO's GNVO's General Studies Other

If 1=excellent 2=very good 3=good 4=adequate 5=poor, please rate:

Would you book another UI course? Yes/No

Please suggest ways in which the course could be improved

Understanding Industry is very grateful to the Lloyds TSB Foundation for England and Wales for their kind support of this course.

Appendix I:

Modified Briefcase Activity, ‘Egg Cups’

EGG CUPS

The Situation:

Your team has just started a **small business**.

You **raised the money** from your own savings, by borrowing from our family, getting a bank loan and getting a grant and advice from the Princes Trust.

You have **rented premises** for your factory (your table and chairs) and have **bought some second-hand equipment** (the plastic bag containing pens, scissors and glue).

You have a **bank balance** of three sweets, which you can use to **buy raw materials** (sheets of paper)

All you need is a **customer!**

The Brief:

I am your first customer. I make cream-filled chocolate eggs: they are very good, but there is a lot of competition.

I have decided to give away a free egg cup with every egg. I know a lot about making chocolate eggs, but have no idea about making egg cups! Luckily for me, your company can help.

I don't really know what I want the egg cups to look like. I know that they must be the right size, and strong enough, to hold my eggs, but I have no ideas about their colour, shape or design.

You must buy your raw materials, design and manufacture egg cups that you think will help me sell more chocolate eggs. You can buy **white paper for 1 sweet or coloured paper for 2 sweets**. You can decorate them any way you like using the equipment you have.

I promise to buy every egg cup you make if it can hold an egg (you need to test each one before trying to sell it to me). However, I am not sure how much I will pay you: it could be anything from 1 sweet to 6 sweets for each egg cup, depending on how much I like them.

You can try as many designs as you like - you don't have to make all the egg cups look the same, so you might earn more sweets for some than others. The sweets that you earn can be used to buy more paper or you can save your profits. *Do not eat the sweets: as well as representing your profits, they are very old, have been used many times and are not fit to be eaten!*

You can only use paper bought from the main supplier - you cannot use rough paper to make samples (you will be fined if you do!)

The winning team will be the company that has the most sweets at the end of the activity (about 25 minutes)

Appendix J:

**Article by Session Leader,
Kevin Cooke**

(draft version)

Understanding Industry - Opening my Eyes to Visual Impairment

by Kevin Cooke
(Student Environmental Health Officer)

Imagine how you might feel about being asked to lead a two hour session, about a particular aspect of industry, for a group of ten people. If you would find that a worrying position to be put into, now imagine that those ten people are all teenagers, and all have some degree of visual impairment. In addition, imagine that you are given only a few days notice of having to lead the session. If the original situation might have caused you some hesitation, there is a very real possibility that the further developments would have caused you considerable worry! However, that very situation was one which I was faced with in March of this year.

Understanding Industry is a charity dedicated to correcting the outdated image of business and commerce that many school and college students hold. Its courses have been running with success for 21 years now, inviting representatives from local business to visit and speak with students about the challenges and benefits of industry. Due to unforeseen sickness by a colleague, it soon became obvious that someone was going to be volunteered into taking over her role on this course. In hindsight, I suppose I should have planned my annual leave more carefully, or joined the foreign legion, but I was in the wrong place at the wrong time and was consequently given the task of leading a session on Health and Safety!

I should stress that although, on this occasion, the course was being run for visually impaired students at the West of England College in Exeter, Understanding Industry is not run purely for students with special needs. Students are normally aged 16-19 years old, and most volunteer to participate in the course. Consequently, everybody is usually very interested in the subject material, with a real desire to be involved in any activities that you might organise.

Sessions normally follow a set structure; you provide a little information about yourself and what your role in your company or organisation is, some details of what your organisation or company does, until an activity to get the students actively involved in the session and give them an understanding of your area of expertise.

Conclude
At the end of the week students have to present, to the rest of the group, a business plan as if they were going to start up a small business. This must draw upon all of the information that the students have learned over the week, with the winners being awarded a prize for their efforts.

For session leaders, there are many benefits from becoming involved in the course. These may include development of your research and planning skills, the chance to test the effectiveness of your communication and presentation skills, and the chance to meet young people who are genuinely interested in what you do. Putting together a presentation and associated activities can also improve your own knowledge of the subject area.

For the organisation or company that you represent, the course could provide some useful PR, the opportunity to find out what people *really* think about your organisation or company, and even the chance to assess some students for potential recruitment at a later date!

To give you an idea of the wide range of companies that participate in the scheme, speakers for this particular course came from The Princes Trust (small businesses), IBM (design and development), J. Sainsbury's (customer care), BT (teamwork), ACAS (personnel) and, of course, myself (health and safety).

In addition to the skills that a standard course would give you, this particular course also gave me a valuable opportunity to correct some of my misconceptions about visual impairment. For example, the term "blind" does not necessarily mean that the person has no sight at all; very few blind people have absolutely no useful sight. In addition, the term "visual impairment" only indicates that the sufferer has some loss of vision, without specifying the cause, degree or effect. It is also a mistake to think that all of those with some useful sight will benefit from large print; for students with severe tunnel vision, for example, large print could actually be larger than their field of vision so in this instance normal-sized print would be much more useful. Another surprise for me was that in the group of ten students who I was leading, only one could read Braille. Overall, although prior to the course I never considered myself to be ignorant to issues surrounding visual impairment, my views soon changed once I was given a little extra information on the subject.

And how did my session go? Well, information about each student's special needs was provided in advance of the course, and support staff were on hand even while the course was taking place to help with any problems that might arise. As such, leading a session for visually impaired students was not too far removed from leading a session for any other group. Obviously most visual aids, such as OHP transparencies and videos are of little use, but the use of descriptive language in their place can be equally if not more effective.

In my session, we looked at the costs of poor health and safety to business, as well as discussing what Environmental Health Officers (EHOs) do and what powers are available to them. Finally, we looked at the theory behind risk assessment and, after doing several risk assessments as one large group, the students split into smaller groups and did risk assessments on a situation of their choice. I was pleased that with a little confidence-building, all students became involved in the activity and were more than willing to explain the findings of their risk assessments.

Students with any type of impairment may obviously be interested in how the subject being discussed might affect themselves and others in their position. This was reflected to a certain degree in the business plans prepared by the students. However, session leaders must remember that visually impaired students have the same interests, ambitions and often experiences as those with perfect sight; often all that they need to lead a normal life is a little extra consideration and support in order to make the world more accessible.