An investigation into the effects of some school-industry agencies on the secondary school curriculum

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AN INVESTIGATION INTO THE EFFECTS OF
SOME SCHOOL-INDUSTRY AGENCIES ON THE
SECONDARY SCHOOL CURRICULUM

A PRAGMATIC APPROACH THROUGH CASE STUDIES

submitted by


for the degree of Doctor of Philosophy,
School of Education, University of Bath
1987

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Postgraduate research colleagues, clerical and technical staff of the School of Education.
The many school-industry agencies, Local Education Authority representatives, secondary school Headteachers and staff who co-operated with this study.
DEDICATION

This work is dedicated to my husband, without whose encouragement and support it would have been difficult to complete, and to my parents, whose desire to attend my graduation ceremony together motivated me above all.
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ABBREVIATIONS AND ACRONYMS USED

B/TEC Business/Technical Education Certificate
CBI Confederation of British Industry
CPVE Certificate of Prevocational Education
CRAC Careers Research Advisory Centre
CSE Certificate of Secondary Education
DES Department of Education and Science
DISCO Divisional Industry-Schools Co-ordinating Officer
DTI Department of Trade and Industry
EILO Education-Industry Liaison Officer
GCE General Certificate of Education
GCSE General Certificate of Secondary Education
HMI Her Majesty's Inspectorate
HMSO Her Majesty's Stationery Office
IA Industry Awareness
INSET Inservice Education and Training
LEA Local Education Authority
MSC Manpower Services Commission
PSE* Personal and Social Education
RSA Royal Society of Arts
SATRO Science and Technology Regional Organisation
SCIP* Schools' Curriculum Industry Project
SILO Schools' Industry Liaison Officer
TUC Trades Union Congress
TVEI Technical and Vocational Education Initiative
UBI Understanding British Industry
UI  Understanding Industry
YE  Young Enterprise
YTS  Youth Training Scheme

The thesis addresses three main questions about school-industry innovations:

. What are the assumptions, expectations and experiences of participants in some existing situations?
. To what extent may the effect of school-industry innovations be improved?
. How do such innovations affect the curriculum of the secondary school?

The aim of the thesis is to analyse the effects of some school-industry innovations. The methodology employed to evaluate, or come to an informed understanding of such innovations, is a pragmatic one, involving a type of progression through case studies. This logical progression is a consequential investigation of the problems within the structure of the education system of England and Wales. A series of case studies focuses on different levels within the system. This produces a 'spotlight effect' at various points on the 'stage', resulting in a degree of overall illumination.

Several dominating focal points arise at each level, impinging upon the nature of curriculum development at the school-industry interface. These are described, analysed and related to other levels, thus 'painting' a picture. This allows creation of a climate for personal interpretation on the part of the reader and formulation of recommendations on the part of the author.

A major recommendation of this study is that schools and school-industry agencies must develop a symbiotic relationship over
discussion of planned strategies, for curriculum development in this field to occur. A model for curriculum development is suggested.
One of the tasks of the Royal Society of Arts in Industry Year 1986 was to "ensure co-operation with existing, relevant 'agencies' and initiatives" (RSA, 1984). Some of these 'agencies' are the subjects of this research. The term 'agency' needs careful definition to avoid misconceptions about the field of study. It is thought to be an organisation external to the school, which seeks to provide resources or simply guidelines, in order to influence the school curriculum. The agencies specified in this research are seen as distinct from National Government, Local Education Authority and Examination Board strategies, and aim to promote the development of education-world of work links in the secondary school curriculum. Their purpose is to affect the development of young people's knowledge and perception of the world of work by a variety of means.

The effects or changes investigated in this study are interpreted by the author as covering a wide spectrum. They range from impressions produced on spectators or hearers, either individually or collectively, to changes which are subsequently brought about by an action or cause. (Hawkins, 1983).

If school-industry agencies are effective, ultimately they will produce change, a fresh outlook, a movement from one phase to another, a difference in the school curriculum. Thus they may be regarded as innovations, introducing new processes, ideas or information into the secondary school.

The curriculum is a confusing concept to many. It is not
viewed narrowly here, equivalent to a syllabus, or subject content, but is seen as a wider concept, encompassing all educational encounters whilst a pupil is at school. Curriculum development must be seen in a broad, pedagogic setting. (Becker and Maclure, 1978).

During the research, the term "school-industry link" was problematic. Most respondents who commented on their understanding of its meaning, defined industry broadly, as does the author. This definition incorporates the local economic community, public and private sectors, manufacturing and service economies. However, the term 'world of work' was more acceptable to some, and thus the words industry and world of work are synonymous throughout the research.

Research is defined by Stenhouse (1981) as "systematic, critical enquiry made public". The author's systematic approach is described in chapter 2, and the enquiry's findings discussed in chapters 5-10. The case study approach used, aims for "fine grained, descriptive detail" (Macdonald and Walker, 1976) and highlights the value of case study for any in-depth enquiry. The author does not rely on her own interpretation of effects caused by the school-industry agencies, but derives information from the participants in the schemes, asking for their assumptions, expectations and experiences whilst in some existing situations. The participants are also in the best position to comment on suggestions for improvement. Hence, the research is largely concerned with the innovations' effects upon participants, and how this leads to an effect upon the curriculum of the secondary school. These aims, summarised as research questions in the Abstract, provide the basis for all lines of enquiry. An in-depth investigation of all lines of enquiry using the systematic approach
(Chapter 2), results in several issues being raised (Chapter 9).

The research strategy may be summarised as in Fig.1.1.

**Fig.1.1 The Research Strategy**

![Diagram of the research strategy]

- **AIMS**
- **LINES OF ENQUIRY**
  - pp.21 23 24 25 29
  - The giving
  - Process of the Research
  - rise to Focal Points
- **FOCAL POINTS**
  - Discussion of Issues

(summarised in Fig.9.1)

The multitude of school-industry agencies have neither uniformity of practice nor purpose. Two agencies feature greatly in this research - Young Enterprise, and Understanding Industry. A third, the Schools' Curriculum Industry Project, merely provides a backcloth to the work, being the ethos behind school-industry work in the area investigated.

Little attempt has been made in the past, either to gather data on the two school-industry agencies featured, by means of in-depth case studies, or to evaluate their effects to such a degree. It is
hoped that this study will provide readers with a more informed understanding of the role of school-industry agencies in curriculum development. If this is the case, readers should be able to relate the situations described to their own establishment and its surroundings. This study should be beneficial to practitioners and agencies active in the field of industry/education co-operation, and at a more fundamental level, to those concerned with curriculum theory and practice.
CHAPTER TWO
EVALUATION THROUGH CASE STUDIES

EVALUATION

As set out in chapter 1, this research embodies a case study approach to educational evaluation in order to identify various effects of some school-industry agencies on the secondary school curriculum. In the context of this research, evaluation is seen as:

"the collection and provision of evidence on the basis of which decisions can be taken about the feasibility, effectiveness and educational value of curricula." (Cooper, 1976).

Such decisions are made based upon a clearer state of knowledge or understanding which the data provides. This, according to Lacey (1979) should be achieved through a "clarification of issues" during, or after the process of evaluation.

Qualitative and Quantitative Methods

The process of evaluation in this research is more analytical than the measurement of the achievement of objectives, and far broader than mere testing. The agencies investigated put forward broad statements of intent, which they include within descriptions of their schemes. Unlike specific objectives, these are difficult, if not impossible to measure quantitatively, e.g.

"To provide students with an understanding of industry and commerce." (Understanding Industry booklet, undated).
The problem therefore, has defined the evaluative method used. The author, with Kitwood (1976) acknowledges that:

"there is a place for a whole body of educational research whose findings are presented in non-quantifiable form, where particular attention has been paid to accuracy of understanding."

The author views the research methodology as "being about process, rather than outcomes; about causes rather than correlations and differences." (Parlett and Hamilton, 1972). In this sense, the research has been conducted largely within the socio-anthropological paradigm. Quantitative methodology, standing on its own, is seen to give an "impoverished view" (Lawton, 1980) and to be "artificial" (Parlett and Hamilton, 1972).

Other problems associated with the quantitative approach are that it:

. "takes no account that an innovatory programme undergoes change during the period of study,
. neglects other data,
. is insensitive to local perturbations and unusual effects, and
. restrains the traditional evaluator to seek generalised findings along preordained lines."

(Parlett and Hamilton, 1972).

Naturalism, rather than the positivist approach, seeks to evaluate to show a "process of exploration". (Hammersley and Atkinson, 1983). What actually occurs in practice, is the base for concern. As Lawton (1980) states:
"one cannot evaluate a curriculum action in terms of its contrapuntal quality - how far it accords with established rules and checklists, predetermined objectives and concepts, what matters is how it sounds, the practice of the action."

This research therefore, is concerned primarily with the practice of the action, to describe the effect of school-industry agencies upon the curriculum and individuals involved.

However, there are benefits associated with the use of quantitative methodology in conjunction with qualitative. Whilst the case study approach to evaluation is seen as being essentially qualitative, Eisner (1985) advises that one should not reject a scientific approach to research methodology. He argues that "binocular vision" should be used, accounting for both scientific and artistic styles. "Looking through one eye," he says, "never did provide much depth of field." Macdonald and Walker (1977) also advocate "a fusion of the artist and the scientist, to provide the case studies which we believe education needs".

Since quantitative methodology is restrictive and has limitations standing on its own, the author views the case study approach to evaluation as being essentially qualitative, but inclusive of quantitative data, where such data adds to a better understanding of the case. In fact, by incorporating qualitative and quantitative data, case study research may well be worthy of a separate paradigm, a view held by Kemmis (1980). The aim of this research is thus to paint as realistic a picture as possible of the effects of school-industry agencies on the secondary school curriculum, by whatever research method is appropriate to the
Case Study as a Research Method

Case study is a developing research method. The 1st and 2nd Cambridge Conferences and the resulting publications Beyond the Numbers Game (1977) and Towards a Science of the Singular (1980) indicate the trends of thought concerning case study research in Great Britain. Walker (1983) still feels the need to describe case study work as "analogous to a cumbersome and primitive plate camera that we have scarcely learnt to handle". The author has had cause to draw upon various articles, such as Walker's, which tend to indicate how not to approach case study work, specifying blunders which ought to be avoided in similar situations. However, there still appears much value in the approach. Sara Delamont, in Burgess (1984), states her application to higher degree work as "a learning exercise, an apprenticeship". In incorporating so many research methods, case study certainly affords that.

Adelman et al (1980) define case study as "an umbrella term for a family of research methods". The data provided forms an archive of descriptive material which attempts, by explanation, to understand how factors relate in a real situation. The 'reality' factor is strong, although "data often proves difficult to organise". (Ibid). This found to be true, the data is nevertheless, "rich with the sense of human encounter". (Stake, 1978).

The author believes that research reports of case study work are more useful and profitable than are statistical accounts, for the practising teacher, since case studies are more likely to be
"epistemologically in harmony with the reader's experience" (Stake, 1978), and are seen by the author as providing a more natural basis for personal interpretation. Although a case study captures an instance, in time (of varied length) and space, it can then "be held against a moving, changing reality" (Walker, 1983) in order to:

"portray complexity,
convey holistic impression -
the mood,
even the mystery of the experience." (Stake, 1978).

The Pragmatic Approach

The pragmatic case study approach used for data collection and analysis, is one which seeks through a series of case studies to illuminate the whole case, or "stage", by shedding light at several points.

Light focused at various points on a stage will cause a merging of light around the points, giving some degree of overall illumination. As light diffuses and reflects, links between the points become visible, the relationship between them being brought into question. These points, or levels, are areas in which decisions are made within education. They are linked methodologically by a type of progression which is consequential and logical, but often governed by constraints.

The Consequential Aspect

In the model for the research (Fig.2.1), the national scene was viewed first. From this, one local Education Authority emerged as the most feasible for further investigation (page 21).
The outcome from the research at County and School levels was that Young Enterprise and Understanding Industry were chosen as the agencies to be investigated (page 153). Of the four schools which were visited frequently, one school in particular lent itself towards further study (page 222). Within that school, the research centred around one teacher in particular (page 225). Hence, the results and constraints revealed after a level had been researched provided the basis for further decisions and research strategies. This, the author calls the consequential aspect of the progression within the overall case study.

**The Logical Aspect**

Movement from one level to the next within the research process, was brought about after consultation with representatives at the different levels of the hierarchical system of education in this country. It was necessary, in terms of etiquette, to approach the Local Education Authority before the schools, and the Headteachers before their staff. This is defined as the logical aspect of the progression.

**A Comparison with Progressive Focusing**

Whereas Parlett and Hamilton (1972) in their paper *Evaluation as Illumination* seek "systematically to reduce the breadth of the enquiry, to give concentrated attention to the emerging issues", this research purports not to focus until all data has been collected, rather like an ethnographer, who categorises his data, or formulates his theories after the event. The author was then able to view the whole before any issues were selected for analysis, thus
The Effects of some School-Industry Agencies on the Secondary School Curriculum - A Pragmatic Approach through Case Studies

Fig. 2.1 The Model for the Research

The Process of Curriculum Development and the Ethos of School-Industry Work in Schools

NATIONAL PICTURE

- LEAs
- AGENCIES

ONE LOCAL EDUCATION AUTHORITY

- HEADS
- HEADS OF DEPARTMENT

SPECIFIC AGENCIES IN SCHOOLS

- (THE MACRO APPROACH)
- Sc.1
- Sc.11
- Sc.31
- Sc.33

THE CURRICULUM IN ONE SCHOOL

- (THE MICRO APPROACH)
making the selection all the more informed. All data, as in Macdonald's (1971) holistic approach, are seen to be potentially relevant. Whereas Parlett and Hamilton seek to illuminate a part, or parts of the stage to a great extent, they become narrower in their focusing, and do not attempt to provide a comprehensive picture of the stage, which lends itself to further, stronger illumination during future research. Parlett's and Hamilton's approach ignores the rest of the stage, as focusing proceeds. This present research is an attempt to illuminate the whole stage, the case of school-industry agencies and their effects on the secondary school curriculum, by developing a number of case studies. The case studies, which supply broad trends, significant features and patterns of variation based on the three questions at the beginning of the research, seem to be intricately linked, uniting each level. They therefore provide an overall picture. It can be argued that for curriculum development to proceed in this country, a national data bank of case studies is required, in order to explore the diversity of practice and expertise which is our educational system. This present research would contribute to such a data bank.

THE FIELD WORK PROCESS

The Chronological Plan

The extent of the research was established at the onset, by placing the investigation into a wide context before drawing boundaries. Several schemes, with a chronological plan, were written and modified during the course of the research. Overleaf is the resultant chronological plan of data collection over a two-year period:
Fig. 2.2 Chronological Plan of Data Collection and Decisions Made

<table>
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<th>COLLECTION</th>
<th>DECISIONS MADE ABOUT:</th>
</tr>
</thead>
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<td>October - December 1983</td>
<td>Historical survey; visits to contacts</td>
<td>Adam: The Local Education Authority in which to conduct the research</td>
</tr>
<tr>
<td>December - April 1983 - 1984</td>
<td>Postal enquiries to Local Education Authorities and Agencies; visits to contacts</td>
<td>Schools to use</td>
</tr>
<tr>
<td>January - April 1984</td>
<td>Headteachers' interviews in 38 schools</td>
<td>Agencies to investigate</td>
</tr>
<tr>
<td>May - July 1984</td>
<td>Postal questionnaires to Heads of Departments</td>
<td></td>
</tr>
<tr>
<td>September - July 1984 - 1985</td>
<td>Weekly visits to Schools 1, 11, 31 &amp; 33, to attend Young Enterprise and Understanding Industry sessions. Data collection methods</td>
<td>The school for Case Study work</td>
</tr>
<tr>
<td>April - July 1985</td>
<td>Case Study work in School 33</td>
<td>Data collection methods</td>
</tr>
</tbody>
</table>

Postal Enquiries to Local Education Authorities and Agencies

Contact was established with all Local Education Authorities in the United Kingdom, by writing to advisers with responsibility for the secondary school curriculum. It was decided later, to limit the investigation to the 104 Local Education Authorities in England and Wales, since administrative structures differ in Scotland and
Northern Ireland. Documentation was requested (Appendix 1) outlining:

* Authority policy regarding school-world of work links
* Current schemes of work and agencies used
* Names and addresses for further contact

The response rate was 78%.

50 organisations were contacted (Appendix 43) with the intention of obtaining:

* Policy statements
* Aims and objectives
* Details of their work in schools and with teachers
* Recent evaluative data.

Over the course of two years, the response rate was 100%.

**County Investigation**

County X was chosen for an in-depth survey of the work of school-industry agencies in schools because it had:

* A history of work in this area.
  
  (It was one of 5 pilot Authorities for the Schools' Council Industry Project.)*

* It has its own Committee for Industry-Education work, which aims to promote school-world of work activities in the school curriculum.

* There is a good cross-section of community types within the County, agricultural, industrial, urban and rural.

* Now the Schools' Curriculum Industry Partnership.
The County was convenient in terms of access, time and cost.

The University's School of Education had an established rapport with the County.

Permission to work in the County's schools was gained after a visit to the Local Education Authority Chief Adviser, who was also asked to provide information concerning the County's involvement with school-industry agencies. (Chapter 5).

The Semi-Structured Interviewing of Headteachers

The information-gathering technique most appropriate at this stage of the research was the interview, conducted with Headteachers in the County's secondary schools. It presented a means of personal contact with all schools for later information gathering. The interview is

"an approach especially recommended where complex issues are involved, and when one's knowledge of them is still in a vague and unstructured form."

(Cohen and Manion, 1980).

The semi-structured interview was favoured because it "allows respondents to express themselves, but offers enough shape to limit aimless rambling". (Wragg, undated). It can also produce information that might not otherwise emerge. Linked with another method for gathering information (the postal questionnaire to Department Heads - Appendix 4), it served as a firm foundation on which to base decisions regarding further research, and the two techniques (being complementary) established convergent validity. Together they provided information concerning the use of agencies in

22
schools, and more specifically, the use of agencies within subject areas.

An introductory letter from the Chief Adviser was undoubtedly helpful in ensuring that all 38 secondary schools (11-16, 11-18) in the County, participated. The interview questions were piloted with colleagues and the first 5 interviews regarded as 'trials'. Subsequent small changes were made before continuing (Appendix 5). The Headteachers were asked for:

- a past history of school-work links in the school
- the school policy on such activities
- the nature of present links
- the curriculum of the school and the role of parents and Governors in determining the curriculum
- their perceptions of staff views about school-world of work links
- the future plans of the school in this field of work.

The author was aware of the charge of potential bias levelled at the interview technique, and deliberate attempts were made to act consistently, for example using the same inflections of voice to ask interviewees the questions. Care was taken to ensure that the mental frames of reference of interviewer and respondent were the same. Handwritten notes and a tape-recorder were used to record the confidential data, which was later categorised for analysis and interpretation. The analysis of data gained must be viewed in the light of human discourse taking place, aware though the interviewer may be, of affecting results.
The Questionnaire to Department Heads

In the third term of the first year of the research, industrial action by teachers constrained the process, so that much information required gathering in a short period of time. The postal questionnaire proved to be the only viable method of conducting the enquiry. The contacts, those who were interviewed previously, in each school, were asked to distribute a two-page, fact-finding questionnaire (Appendix 4) to all Department Heads. It was considered that Heads of Departments ought to be the recipients of the questionnaires since they would be able to report on work done within their own departments. It would have proved too expensive, time-consuming and too large a task to administer a questionnaire to every member of staff in the County. The questionnaire served to gain information about the use of agencies within subject areas, and to provide information for a later choice of case-study domains. Use of agencies outside specific subject areas, or across areas had already been investigated during the interviews, with Headteachers. The questionnaire therefore provided the information which was needed, in order to give a full picture of agency use in the County's schools. Agencies specified on the questionnaire were those which were mentioned frequently during the interviews with Headteachers. The questionnaire was piloted with a Head of English and Head of Chemistry, to establish face validity. A paper was sent as feedback to all participating schools. This was later updated and forms part of chapter 5 (pages 145-150).

Based on information gained from lines of enquiry at this level, and previously, the choice of agencies for further investigation and schools for the investigation to take place, could
be made (chapters 6 and 7).

**Evaluative Lines of Enquiry : The Macro Approach to Case Study**

Work was done in four schools during one year (the Macro Approach). At the end of the same year, one of these schools was chosen for a more in-depth study (the Micro Approach).

When contact was made with the four schools, it was not clear how the different agencies fitted into the general context of each school's operation. Initially, it was felt important to spend some time in each school to illuminate lines of enquiry and strategies for collection of information (based on the three questions posed at the beginning of the research). Having observed the agencies used in an instructional situation for two weeks, the following lines of enquiry were defined:

1. The interpretation of the aims of each agency by the individuals involved.
2. The experiences of participants over the length of the courses.
3. Individual's views of the agencies and suggestions for improvement.
4. The administration and role of the agencies within the broad framework of the school curriculum.

These lines of enquiry then dictated the methods used to gather information. Different techniques were combined to shed light on the work of agencies in schools. No method was used in isolation, triangulation procedures being employed to validate the information gained.
Methods for Gathering Information

Data was collected using the following methods:

1. Documentation collection from the schools. (Prospectuses, past publications, minutes of meetings.)

2. A diary of classroom activities with a broad framework for recording, e.g. teaching styles, pupil behaviour, staff involvement, advice given by adults present, comments from participants, subject matter conveyed. (Appendices 8 & 10).

3. Pupil evaluation sheets, so that individual pupil profiles could be constructed. (Appendices 12 & 13).

4. Semi-structured interviews and informal talks with -
   - teachers - Appendices 14 & 16
   - speakers (UI) - Appendix 18
   - advisers (YE) - Appendix 20
   - selected pupils - Appendices 22 & 24

5. An attitude questionnaire ('Likert'-type)
   Appendix 26 (YE) and Appendix 27 (UI)

"Likert scales tend to perform very well when it comes to a reliable rough ordering of people with regard to a particular attitude." (Oppenheim, 1966.) In this case, the attitude in question was pupils' attitudes to the agency (course). Likert was chosen in preference to Guttman's scale which measures attitude change and hierarchical structure, or Thurstone's scale, which highlights group differences. (Ibid.). The questionnaire was used solely as a selection instrument, giving high, medium or low
attitudes to each agency (setting pupils on a line indicating "favourably or unfavourably disposed towards the courses"). Such dispositions were calculated using the mean and standard deviation, so that further qualitative information could be obtained. The method enjoyed no privileged status within the study and merely contributed to the data collected (pages 180ff and 208ff). (Parlett and Hamilton, 1972).

**Devising the Questionnaire**

An item pool was collected, by interviewing pupils who had taken part in Young Enterprise or Understanding Industry previously (Annexes 25 and 36), and who were in different schools to the one being visited. Each questionnaire was piloted, tested for reliability and then administered. Owing to the small numbers of pupils involved, the reliability of the Young Enterprise attitude scale was gained after administration.

**Reliability of the Attitude Questionnaire**

Cronbach's $\alpha$ is the mean value of all the possible split-half reliability coefficients. These are scores randomly chosen on half of the test, correlated with scores on the other half (Jupp and Miller, 1980). Such a measurement gives a measure of internal consistency. Generally, reliability is defined as "the extent to which a test gives a consistent result if applied more than once to the same people under standard conditions". (Ibid).
### The Reliability of the Attitude Questionnaire

<table>
<thead>
<tr>
<th>AGENCY</th>
<th>RELIABILITY*</th>
<th>MEAN SCORES</th>
<th>STANDARD DEVIATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>YOUNG ENTERPRISE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trial school 33</td>
<td>0.78</td>
<td>**</td>
<td>**</td>
</tr>
<tr>
<td>(14 cases)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 schools</td>
<td>0.75</td>
<td>119</td>
<td>9.8</td>
</tr>
<tr>
<td>(Nos. 1, 31, 33)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(45 cases)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>UNDERSTANDING INDUSTRY</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trial school</td>
<td>0.90</td>
<td>110</td>
<td>18.4</td>
</tr>
<tr>
<td>(No. 33)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(22 cases)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sc. 11</td>
<td>0.84</td>
<td>108</td>
<td>13.4</td>
</tr>
<tr>
<td>(21 cases)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Cronbach's α (the mean of all split-half coefficients).

** Mean scores and standard deviation for Sc.33 (YE) incorporated in column below.

No other schools in the County were conducting Understanding Industry courses, therefore School 33 was used as a 'trial' school.

### Reliability of the Whole Research

In ethnographic work, reliability relates to the extent to which two observers agree consistently over an analysis of some social situation. Whilst no formal observation occurred, the author attended sessions and kept a diary of events. The supervisor was invited to attend and record independently of the author. The results were discussed afterwards. A high accuracy and level of compatibility between the two separate records was achieved. According to Jupp and Miller (1980), reliability is a difficult measure applied to case study work, owing to reliance on natural
settings at one instance in time.

The Case Study School

During the last two terms of data collection, the agencies needed placing in the wider context of a school curriculum, to ascertain the process and constraints of such schemes being implemented.

Evaluative Lines of Enquiry: The Micro Approach to Case Study

Having worked in the school during the Macro stage of the evaluation of agencies, the scene was already 'set' for the following lines of enquiry:

. The policy, ethos or understanding within the school towards school-industry links.
. The process leading towards curriculum development and the role of school-industry links in the school.
. The role of the Industry Awareness teacher and the effect of agencies (Young Enterprise, Understanding Industry and others) on her teaching.
. The different interpretations by staff, of the work of the agencies.
. The permeation of the agencies' key concepts and ideas within the school, and the acceptance or rejection of them by staff.
. The views of school leavers - some who have participated in Understanding Industry and/or Young Enterprise, and some who have experienced neither (a built in scientific control). This is presuming no other permeation through the curriculum. (See Questionnaire results, chapter 8).
The views and involvement of parents, governors, the Careers Service representative and people from the local community.

Collection of Information

It was decided not to observe classes being taught, but to use the interview approach as much as possible. This is in keeping with Stenhouse (1982) who writes:

"the people I interview are participants and observers of themselves. They are reflective about their experiences, and it is their observations, not mine, that I am after."

The following methods were employed to investigate the case of the effects of school-industry agencies in one school:

- Semi-structured interviews with:
  - all staff (Appendix 28)
  - some parents (who had pupils in different years) (Appendix 32)
  - the Chairman of the School Governors (Appendix 34)
  - the Chairman of the Parent-Teacher Association (Appendix 40)
  - the School's Careers Officer (Appendix 36)
  - local industrialists (Appendix 38).

Questions to all the above encompassed:

- what are your views of school-industry links?
- do you know of specific school-industry links?
- what do you interpret the policy of the school in this field, to be?

- Documentation collection:
  - Headteacher's log book
- syllabuses
- minutes of meetings, e.g. curriculum development, academic, and staff meetings.

- A fact-finding questionnaire given to all school-leavers before they left the school. (Appendix 49)
- Videotaping of the Industry Awareness lessons, showing the role of the teacher, relating to the work of the School's Curriculum Industry Project. (Tape Annex 46).
- Information already gained from the Macro-evaluation. As before, triangulation procedures were employed to establish validity.

THE ETHICS OF CASE STUDY RESEARCH

At the County level, permission was gained to enter schools, and entry was facilitated as a result. The research was conducted on the understanding that any evaluative work done would be for the purpose of the research, and not on behalf of the Local Authority. No interim results were to be forwarded to any representative of the Authority; these were to be viewed by the same, only after publication of the thesis.

The Role and Responsibility of the Researcher

The author had difficulty sustaining such a level of confidentiality. Whilst subjects were allowed control over data (i.e. discussion over the author's presentation of results as a means of cross-checking the validity of their answers), all participants in the research have the right to know the results. Those involved with school-industry work were rightly, interested
whilst the research was in progress. This paradox, between the rights of the subjects and the audience is highlighted by Jenkins (1980) in his article *An Adversary’s Account of Safari’s Ethics of Case Study*. He takes the adversary’s position towards Macdonald’s style of democratic evaluation for the SAFARI (Success and Failure and Recent Innovations) Project, seeing an ethical problem at the heart of case study research. The ethics of access to sensitive data, and the ethics of release of such data, he says, form a 2 x 2 dichotomy, as featured below:

![Jenkins' 2 x 2 Dichotomy](image)

The researcher is constantly striving to obtain high access to sensitive data. In doing this she has to break down an ethical barrier, between boxes 1 and 2. In obtaining access, the researcher promises confidentiality, and overcomes the ethical barrier. However, the ethical barrier between boxes 2 and 4, called the ethics of release barrier, meant that, in releasing the data, the obligation the researcher has to a wider audience comes into question. Should one maintain confidentiality and limit the release
of data, or not? Macdonald gave participants access and control over data, but Jenkins disagrees with the extent of this control and says he has an obligation to his audience and his own professionalism. There exists, therefore, a conflict of interest between the confidentiality of information given, which ensures a high validity, and the extent to which the information is released to benefit a wider audience and perhaps the whole teaching profession.

The author experienced very much these disturbed feelings. A high degree of inter-personal skills was needed, since there was involvement at County level, in the Headteachers' studies, in staffrooms and in classrooms - also on business premises and in parents' homes. It must be stated however, that the author was not inexperienced at dealing with staff within education and was able to establish, eventually, a good rapport with all persons connected with the research. Relationships had to be built up over the course of two year's data collection. This was a time-consuming activity, and involved more work than if the author had been working on behalf of an established research project within the University. Having built up a rapport with the subjects of the research, it is no doubt true, that they were able to be more honest in their responses. The author attempted a 'softly-softly' ethical approach, encouraged by Parlett and Hamilton (1972) who suggest that a researcher should be:

"unobtrusive, without being secretive, supportive, without being collusive."

On Junker's scale (1960) in Hammersley and Atkinson (1983), the role was interpreted as being between the complete observer and the observer as participant (Fig.2.5).

where I = Complete Participant
II = Participant as Observer
III = Observer as Participant
IV = Complete Observer

Within the area of comparative detachment, where the research was conducted, lay ground for some involvement which made the author's objectivity more difficult. Because of the range of research methods used, different approaches were needed, to maintain objectivity on each occasion data were collected. Objectivity became more difficult owing to increasing familiarity and rapport with some teachers, Headteachers, pupils, advisers, speakers, parents, local businessmen and County and agency representatives. The author's role therefore, altered, depending upon the research method used and the degree of rapport with respondents, which changed over time, and with circumstances.
Fig. 2.6a  Circumstances Affecting the Author's Role during Data Collection with Young Enterprise Groups

An instance where the author was asked to take the teacher's role

INVolVEMENT

Administration of Questionnaires & Pupil Evaluation Sheets

Fig. 2.6b  Circumstances Affecting the Author's Role during Data Collection with Understanding Industry Groups

An instance when the author was constantly involved by a speaker

INVolVEMENT

An instance when the author was asked to take the session

Administration of Questionnaires & Pupil Evaluation Sheets

KEY for Figures 2.6a and b:
- Interviewing
- Establishing rapport with staff
- X A normal session
- Diary completion
- Specific instances
Figures 2.6a and 2.6b, based upon an adaptation of Junker's model, illustrate circumstances which occurred during data collection, causing the author to question her own objectivity.

It was impossible to remain totally unmoved by discussions, questions, attitudes, happenings in classrooms, at interviews, in staffrooms and Headteachers' studies. One could only be aware of one's own prejudices, assumptions and beliefs and how they might distort the recording, collection and analysis of data.

**An Example of the Ethical Approach at School Level**

When the Headteacher of the case study school 33 was approached as to whether the author could have access to the whole school, a friendly working relationship had already been formed owing to the author's attendance at Understanding Industry sessions. The Headteacher willingly allowed the research to continue on a larger scale. The only reticence expressed was the uncertainty of staff reaction because of union involvement over the teachers' pay dispute. After a meeting to discuss methods of enquiry, questions to be asked, confidentiality, feedback to the school and the author's access to documentation, it was agreed that the staff should be asked if they wished to participate at the next informal staff meeting (held weekly). No-one objected verbally to being interviewed at that stage. The staff were then requested by individual letters (Appendix 27b) whether they would agree to be interviewed. A formal interview schedule was designed and forty-seven of the fifty staff were interviewed over a period of approximately six weeks. Those not interviewed indicated by letter that they thought their lack of involvement in the school-industry
work of the school would be valueless to the research.

At all stages during the case study work, the Headteacher was kept informed and was approached before each research technique was used. This consideration is seen as being inseparable from the methodology of the ethical approach to case study. At the end of data collection, the Headteacher was given a written report, a resume, in general terms, whilst the anonymity of individuals was maintained.

Participant Control over Data

The Headteacher was asked, if he saw fit, to circulate the same documents to the Industry Awareness teacher (T41) and the Senior staff (T9, T34 and T40). A meeting with these persons was agreed, and served to support and add to the research findings. The reactions of the participants was considered very important, the comments at the meeting having the same status in the final report (circulated to all staff in the school) as those of the author. The group was also asked to comment at this stage on the degree of disturbance caused by the author's presence within the school, to which the response was:-

"You've made me think." (Head)

"I've thought, changed and improved."

"At the beginning, the pupils were inhibited."

(Annex No.58, Appendix 48).

A copy of a video-recording of Industry Awareness lessons (Tape Annex 46) was given to the school.
The Release of Data

The author accepts that evaluation cannot be divorced from development and thus, with the Headteacher's permission, a letter was sent to the County Officer for School-Industry liaison, to notify him that copies of the video-tape were available from the school. It is hoped by all individuals involved, that the video-tape will serve as a focal point for school-based in-service training and in-service training at other venues.

Notes of thanks to the Headteachers and staff of all participating schools were circulated at the end of data collection, with notification of the approximate date of thesis publication.

VALIDITY OF THE RESEARCH AND RESEARCH METHODS

Validity refers to "the extent to which a test, questionnaire or other operationalisation is really measuring what the researcher intends to measure". (Jupp and Miller, 1980).

Validity of the Attitude Questionnaire

According to Oppenheim (1966) there is no sure method of finding the validity of an attitude questionnaire. However, interviews of selected pupils (gaining high, medium and low scores) served to validate the questionnaire, since the questions asked at interviews (Appendices 22; 24) were those which featured on the questionnaires. (Appendices 26; 27 respectively.)

Establishing Validity

Applied to case study research, where measurement is not a main consideration, the validity of the research is the extent to which
one can rely upon and trust all the published findings, statements made and interpretations of actions seen, depending on the justification of use of the methodology employed. A strong source of validity is that the same trends emerge from separate sources of information. It is these very trends which become the focal points of chapter 9.

During interviewing and questionnaire administration it was important that the respondents understood the questions and responded truthfully. For this to happen, the author was careful to describe the purpose of the research and to clarify any points before beginning. Wording of items on questionnaires and interview questions were carefully piloted, in order to minimise misconceptions of the questions asked.

**Triangulation**

The correctness of answer is "usually assessed by replication or inter-instrument agreement". (House, 1980). The answers were cross-checked throughout the research by using the process of triangulation - setting data against data to establish 'truth'.

**Examples of Triangulation Within the Research**

**Pupils - perceptions and achievements**

Responses on attitude questionnaires were referred to during interviewing of selected pupils. Staff and advisers/speakers were asked of their perceptions of individual pupils and their achievements. The pupils constructed their own profiles to give an idea of the effect of the agencies on them.
School - Industry liaison work

Questions were asked of teachers, Headteachers and at County level concerning the work of industry-education liaison in the County. Printed matter was also referred to.

Agencies - national and County administration

Local representatives, staff from schools and national representatives were asked for their views on some agencies' administrative work. Documentation was also supportive of these findings.

Since "validity depends on the match between the evaluation and the experiences of the participants" (House, 1980), it was necessary to invite comments on all draft reports circulated. This feedback to the author provided extra, valuable data.

External Validity/Generalisation

"External validity", according to Jupp and Miller (1980), "refers to the extent to which results can be generalised beyond the immediate sample or setting."

The major concept to be overcome during case study research is how to generalise, although Hamilton (1981) feels that "the problem lies with the psycho-statistical paradigm and its restricted concept of generalisation". Generalisation, according to Eisner (1985) occurs by "a build-up of common general features, recognised in the particular". Golby (1985) defines the particular as "though individual and specific, an intelligible thing or event which may be related under a method of description to others of its kind".

During analysis of data within this research, focal points which emerge at all case study levels are described and analysed.
Focal points at certain levels may be noticeably absent, but nevertheless form part of the whole picture being described. "The broad trends across each case are important but equally important are the patterns of variation across cases." (Stenhouse, 1982). The consideration of focal points at various levels may then provide insight into other situations where similar circumstances exist.

Generalisation is a recent topic for discussion in this country. Wehlage (1981) says there is a "lack of clarity, as to form, content and power of generalisation". However, two statements are claimed in support of ability to form generalisations from this research work.

Firstly, the truth contained in a successful case study report is "guaranteed by shock of recognition" (generalisation by analogy). (Adelman et al., 1980). It will be left to the reader to recognise areas of similarity with his/her own practice.

Secondly, "a school may be individual and unique, but it is still part of the generality of 'all schools'". (Hamilton, 1981). In describing and analysing certain issues, at each case study level, what occurs at each instance of time researched, is still part of the "true picture" gained. Truth, in its turn, relates to the validity of the research findings.

According to Hamilton (1981) the efficiency of research tools can "always be improved upon by further thought, experimentation and logical analysis". This study has served to highlight areas of future research (chapter 10) and has contributed to the author's research training. If beginning again there is no doubt that the author would approach the research from another stance, and hence the methodology would differ. However, an awareness of the
strengths and weaknesses of the research, the location and amelioration of the weaknesses where possible, make the study all the more valid.
CHAPTER THREE
BACKGROUND TO THE SCHOOL-INDUSTRY MOVEMENT IN BRITAIN

TOWARDS STATE INTERVENTION

Early Schools

In the 17th and 18th centuries, no state system of education existed in Britain. The first Industrial Revolution was caused by unrest due to "structural changes in the nature and organisation of industry" (Tasker, 1985) and industrialisation was achieved with "virtually no support from education". (Jamieson and Lightfoot, 1982). At the beginning of the 19th century, the schools which existed were dame schools, charity schools, endowed public and grammar schools, private schools, or schools of industry. The latter were fostered by the Society for Bettering the Condition and Increasing the Comfort of the Poor, but employers objected to them, for it meant diminished attendance at the mills. There was a dearth of schools for the working class, because of a feeling among the middle and upper classes that their positions as leaders of society and employers might be threatened if the workers were educated. (Weslake-Hill, 1974).

"Many of the early educational pioneers came from Non-Conformist backgrounds. The Church influence was so strong that:

"Those who seek to measure the relationship between education and economic development should note the degree to which the early official concepts of efficiency in education meant primarily a schooling which scored high marks in divinity and morality."

(West, 1975).
Reform

At the beginning of the 19th century, when the Industrial Revolution caused such social unrest, several educational reformers were committed to promoting change in the school curriculum. (Reeder, 1979). Their aim was to bridge the gap between education, with its literacy-classical curriculum entrenched in Church tradition, and industry, which was fast developing to make Britain the "workshop of the world". (Jamieson and Lightfoot, 1982).

Robert Owen, the energetic campaigner for mass education, wished to restore the dignity of labour and was convinced that the educational needs of the industrial masses needed to be planned in conjunction with the new social and economic system. He believed that education, correctly directed, would create the ideal society. (Weslake-Hill, 1974). He echoed to an extent, the philosophy of John Dewey, who, in America, voiced his concern to "transform the existing social order, rather than improve its effectiveness". (Reeder, 1979). Owen was more concerned with the initial recognition and improvement of conditions for the proletariat in British society. Dilemmas existed then, as they do today, according to Reeder, about the assumptions underlying the aims of schooling, and the nature of the industrial order.

Attempts To Legislate

The problem of providing education for all was too large for organised philanthropy, such as the efforts of Owen, or Robert Raikes, the founder of the Sunday School Movement. Their pressure meant that state intervention ensued.

In the 1802 Factory Act, apprentices were to be instructed in
the three Rs and given Religious Instruction for one hour on Sundays. (Weslake-Hill, 1974). Educational legislation, therefore, was introduced as part of a measure designed to improve the lot of a small minority of the nation's children.

France, Prussia and Saxony had already introduced systems of compulsory, popular education. Roebuck, in 1833, in Britain, put forward a Reform Bill. In introducing it to the House, he said:

"I wish the people to be enlightened that they may use the power well, which they will inevitably obtain." (Ibid).

He proposed schools of industry, with a very liberal curriculum – including the three Rs, Art, Music, Hygiene, Nature, Civics and training in some trade. His Bill was not accepted, but a long keen debate showed growing interest amongst the nation's politicians.

The Victorian/Technical Age

A conflict over the nature of schooling is highlighted by Watts (1983) who says:

"The elite educational institutions from the Victorian era, tended to propagate a particular academic and cultural heritage which was associated with a gentlemanly disdain for vocational application and particularly for industrial manufacture."

Conversely, the vocational demands and motives of the reformers on behalf of the masses, meant a "gradual extension of schooling from select and privileged groups." (Ibid). The Government intervened, resulting in universal elementary schooling in 1870. Its intervention was caused also by general anxieties over the
possibility of social and economic disorganisation, the role of the Crown, the war with Germany and national efficiency in the light of growing competition from France. The question of the future of work in urban society was raised. Indeed, several parallels may be drawn with the state of the nation today (page 60 of this chapter).

Pressure groups in the late nineteenth century, stressed the country's deficiencies in scientific and technical knowledge. The aim of one such group, the National Association for the Promotion of Secondary and Technical Education, was to "modernise schools in the light of industrial requirements". (Reeder, 1979).

The Trades' Union Congress was established in the late 19th century, which "showed its concern with general issues of provision, of payment for education and the access of working-class children to the system". (Jamieson and Lightfoot, 1982).

Thus, the end of the 19th century saw the school-industry debate well-grounded in issues, not dissimilar to the ones being questioned today at the onset of the Technological Age, or as the economist Daniel Bell suggests - "Post-Industrial Society". (Bell, 1967).

THE SCHOOL-INDUSTRY DEBATE AMIDST THE EVOLUTION OF PRESENT DAY SECONDARY EDUCATION

Background

The Balfour Act, giving control of education to County and Borough Councils (after the formation of the Board of Education in 1900), became another turning point - a negative turn, according to Reeder (1979), who says that "older traditions and ideals were drawn back into the system". This was perhaps understandable, as most of
the politicians had experience of the great public schools of the Victorian era.

In the early 1900s, the employers' pressure groups could not agree amongst themselves. Some thought the formulation of attitudes and behaviour of workers was the role of the education system, whilst others thought mechanical skills were more relevant for future jobs. (Jamieson and Lightfoot, 1982). The argument between the purpose of education, and whether it had a role in training, had begun (page 59 of this chapter).

In 1926, school-industry liaison appears to have been well-established. The Hadow Report (p.117, para.20), states:

"A number of Headteachers have established relations with local employers and have attained useful results thereby. We think however, that in general, there has not been sufficient contact between teachers and employers and that in future it would be desirable for Headteachers to obtain the views of local employers and employees before giving any trend or bias, particularly of an industrial character, to the curriculum..."

Those actively engaged in present-day liaison activities are often found to quote from the same report:

"For schools and industry are different facets of a single society, and the habit of mind which isolates them from each other is a habit to be overcome."

It is a paradox, that development of academic examinations in the early 1900s (Curtis, 1965) which gave standards for job appointments in industry as well as academia, created more
difficulty for detailed changes to be prescribed in schools, at a
time when the school-industry debate was extremely lucid.

The case for liaison continued to be made. In 1928, the
Malcolm Committee on Education and Industry, set up against a
background of complaints in the press about standards of literacy in
the elementary schools, made the following statement:

"Industry must define their needs, and no other body
can do it for them, but if such definition is to be
of any use, it should be based on a reasonably full
and sympathetic knowledge of what schools are doing,
and trying to do."

Whilst this message was resounding, developments within education
made such liaison difficult to achieve.

The Tripartite System

Spens (1936) had "favoured the establishment of technical
secondary schools with entry requirements on a par with those for
grammar schools". (Richmond, 1978). The Norwood Report (1941)
which preceded the 1944 Act and secondary education for all to the
age of fifteen years, recommended three types of school based on
three types of individual:

- "the grammar school pupil (who is interested in
learning for its own sake and can hold his mind in
suspending),
- the technical school pupil (whose interests and
abilities lie markedly in the field of applied
science or applied art),
- the modern school pupil (who deals more easily with
concrete things than ideas)."

The technical schools never became equal to grammar, or secondary modern schools. The Journal of New Secondary Education (1947) hailed the schools as "catering for a minority of able children who are likely to make their best responses when the curriculum is strongly coloured by industrial and commercial interests, both from the point of view of career and because subject matter of this kind appeals to them."

A few technical schools built up a fine reputation (e.g. Bath and West Riding) though only rarely did they recruit a body of pupils of equal calibre with the grammar school. They were always supported by a loyal, if small body of opinion which believed them to be uniquely valuable. By 1976, under twenty-five technical schools existed, and several of these were amalgams - called Grammar Technicals. (Dent, 1977). Reasons for their comparative failure, within what could be generally called a bipartite system, are that the technical schools had to contend with the prestige of grammar schools and share accommodation, staff and equipment with technical colleges intended for mature students. Not least, the technical schools usually admitted entrants at the age of twelve or thirteen, by which time the most able had most likely been offered places at grammar schools and accepted them. (Richmond, 1978). Whatever the reason, in most areas, the technical school ceased to exist as a separate entity. Swift (1973) criticises the system:

"The grammar schools clearly led to 'white collar' occupations, while the secondary modern schools led to 'blue collar' occupations."

In the secondary schools, the medium of the external
examinations played a considerable part, and as such, "cast doubts on the long-term acceptability of the new secondary modern schools" (Gosden, 1983), whose credibility came to be measured by pass rates. By the late 1950s, though the tripartite system existed in name, "the originally sharp dividing lines between types of schools had in many places become blurred" (Dent, 1977) and a number of comprehensive schools were set up.

**Comprehensive Education**

The pace of change, social, economic and technical, was forcing the pace of educational change to an unprecedented extent in the 1960s and 70s. The ideological concern for greater equality of opportunity, together with the demands for a more highly skilled workforce from a then prospering economy, provided a climate in which the decision was made to merge the different types of secondary schools into comprehensive schools, catering for the full range of ability. Attempts have been made to band, set, or place pupils in mixed ability groups in comprehensive schools, but Watts (1983) maintains that the change to comprehensive education can never be fully implemented whilst the private system continues for the elite.

**Curriculum Pressures**

In 1962, the Ministry of Education set up a Curriculum Study Group, which would concern itself with the curriculum and Examinations. (Gosden, 1983). By 1964, this had expanded to form the Schools' Council for the Curriculum and Examinations. (Ibid). With the raising of the school leaving age in 1972, there came a
demand for a curriculum suited to the needs of those pupils who had to remain at school whilst taking few, or no public examinations. The Schools' Council was limited in its function, since it acknowledged segregation of specialist subjects, and was most concerned with producing projects for the less-able, rather than viewing the curriculum as a whole. (Kelly, 1982). In the early days, the Council was more concerned with the outcomes of its projects, rather than the process of innovation. Its own Impact and Take-Up Project (1980) reports that before 1974 little notice was taken of dissemination or after-care of projects. In circulating questionnaires to seven and a half thousand teachers in England and Wales, the Impact and Take-Up Project concluded that "projects which did not have specific resources for dissemination available after the date of publication are not so widely known of, or used by teachers, as those which did have."

Another conclusion was that "those projects which are cross-curricular have not in general achieved such high levels of 'familiarity' or 'use' as the single subject projects." It is noteworthy, however, that the supplementary report (Raggett and Tutt, 1980) concluded "some teachers desired co-ordinated/integrated courses, and also projects that were geared to the needs of industry." *The School Council Industry Project was set up in 1977, a year after the Impact and Take-Up Project was initiated (page 52 of this chapter).

*Now the Schools' Curriculum Industry Partnership.
School Industry Liaison - The Present Day Movement

Trades Union Congress Involvement

Discontent with comprehensive education and its organisation arose in the 1980s amidst social and economic problems. The Trades Union Congress (TUC) entered the debate when reacting to the legal implications of setting up work experience schemes suggested by the Newsom Committee (1963), which gave examples of some efforts by schools "to inject an element of realism in the content of the final year's course". The then Secretary of State for Education, Margaret Thatcher, argued for legislation in 1972, which the TUC opposed on grounds of safety aspects. The TUC distrusted "the schools' capability to handle vocational choice and preparation of any kind". (Jamieson and Lightfoot, 1982).

In 1972, the TUC proposed there might be a project on industry, to the Schools' Council. Together with the Confederation of British Industry "it was agreed to introduce the Schools' Council Industry Project for pupils 13-19 years of all abilities". (Ibid). The modern movement therefore, predated the Ruskin speech, which is usually credited with its genesis. This is supported by examples of school-industry liaison work in local authorities, pre-Ruskin. County X, investigated in this thesis, held a school conference for industrialists, trade unionists and educationists in April 1975, as a result of which a consultative group met regularly to discuss education and industry. (See chapter 5). Another county, Y, responded to press criticism and after various meetings in the mid-seventies, formed its Education/Industry Group one week before the Ruskin speech.
The Great Debate

The Ruskin speech succeeded in bringing several issues to the fore, and according to Jamieson (1985) it "institutionalised liaison". When James Callaghan, the Prime Minister made his speech at Ruskin College, Oxford, on 28th October 1976, he said he was "concerned to find complaints from industry that new recruits from schools sometimes do not have the basic tools to do the job required". He stressed the need to improve relations between industry and education and instructed teachers to meet the requirements of parents and industry, and the needs of the pupils, in what they were teaching. Furthermore, he noted that "many of our higher ability pupils have no desire to enter industry". (Callaghan, 1976).

From the Great Debate, a "back to basics" movement began. "Fringe concerns on the curriculum", writes Ball (1979), "were seen to downgrade standards of literacy and numeracy." The Debate also encouraged people to believe that "many aspects of the education system actively inhibited the profitability and growth of industry". (Finn, 1985).

Reaction to the Government's Green Paper - Education in Schools : A consultative Document (Cmnd.6869), produced in 1977, to consolidate the Ruskin speech, was strong. The Centre for Contemporary Cultural Studies (1981) declared that "the subordination of schooling to the requirements of industry was complete". Watts (1983) said that this was an exaggerated view and that wider goals were implied in the Green Paper, since the needs of those in unemployment were given greater prominence after the publication. The Green Paper was a direct appeal to schools to give
industry a better image. As a result, school-industry agencies, some of which were already in existence, mushroomed, in an attempt to change that image. The development of such agencies is discussed in chapter 4.

Further Government Publications

Subsequently, the Department of Education and Science published several documents relating to the school curriculum, and the schools' role in society. Among these were:

**Curriculum 11-16 (1977)**

This stressed the need for rewarding co-operation between schools and industry, which should be "organised, managed in detail and sustained". The curriculum was seen as being "continually reviewed and negotiated in the light of differences between the changing demands and expectations of society and current educational philosophies". The debate over the relationship between economic and social development and educational provision is taken up by Reeder (1979) in his article, "A Recurring Debate". In it, he voices concern over "the inflexibility and insularity of the school system".

Attempting to alter the situation, a letter concerning school-industry links was sent to all Chief Education Officers from the Department of Education and Science in July 1978.

"The purpose of this letter is therefore to invite you to review the effectiveness of school-industry liaison in your area and to consider whether any new steps are desirable." (DES, 1978).
As a result, posts for school-industry liaison officers were created in a number of Authorities. A study by Wood (1983) showed that in 1977 there were seven officers, whilst in 1982, there were fifty-six. Many of these had dual roles such as Schools' Council Industry Project local co-ordinators or Understanding British Industry regional organisers. This is a pointer to the comparative success of agencies such as Understanding British Industry, since their personnel were able to be used by Local Education Authorities in answer to Government 'pressure'.

Criticisms exist of the role of school-industry liaison officers. Nisbet (1982) said that "few see their function as influencing curriculum change or are indeed aware of the mechanism that is needed for that change". This seems particularly harsh, since those officers associated with the Schools' Council Industry Project especially, would have had a brief which stressed the need for curriculum development, and indeed, laboured the process of such development. A noteworthy criticism is one made by Wood (ibid) when he found that only ten out of fifty-six schools-industry liaison officers who responded to his survey were seconded from industry. Two-thirds were secondary teachers. Whilst the Department of Industry played a part in funding, only one officer in the survey was funded completely by industry (through the Confederation of British Industry).

The Welsh Office Paper, 'The School Curriculum' (1981) was able to draw attention to the various agencies which had mushroomed and local initiatives which had been devised to attempt to change the school curriculum. The paper stated that a study of the nature and
coverage of such activities, their effectiveness and ways in which they may be enhanced had been "commissioned from a Senior Industrialist". (Neville Cooper, of Standard Telephones and Cables Limited).

The subsequent Cooper Report (1982) can be viewed as a poor attempt at research in a limited period of time. The Science and Technology Regional Organisations Panel (SATRO/81/5) expressed its "gravest disappointment". It said, "an important opportunity to take the school-industry debate forward has been missed". Neville Cooper, according to the Panel, made no taxonomy of link schemes, which needed categorising, and had ignored the principal feature of link schemes - local co-ordination and catalysis. The Panel showed the then present state of school-industry liaison by criticising the choice of recipients of the questionnaires.

"We doubt whether Chief Education Officers yet have enough sympathy for school-industry liaison to be relied upon universally as the main reference point for information and advice."

This is further substantiated by the author's work, which addressed questions to Chief Education Officers or Secondary School Advisers in 1983. Most information was gained from School's Industry Liaison Officers, to whom response to the initial letter was delegated (chapter 2).

Morris (1982) called the Cooper Report a 'rag-bag' containing "a great deal of material of questionable value". It is difficult to speculate whether the resulting report would have been better if more time had been scheduled for its completion.

Cooper (1982) called for less confusion, a considerably
increased effort by all, and co-ordination. He proposed a 'Group of Thirty' - representatives of large concerns to oversee developments, and to co-ordinate. The call for co-ordination echoed developments in the United States, where the National Association for Industry Education Co-operation serves as "a clearing house, operates information services, conducts evaluations and initiates research and policy studies." (Clark, 1984).

There is a demand for co-ordination by some in this country - for example, the Association for Industry Education Co-operation had its inaugural meeting in October 1985, and the Education Working Party for Industry Year 1986, suggests co-ordination of liaison activities as one of its aims. (RSA, 1984). However, it appears that one of the strengths of industry/education co-operation in Great Britain is that it is locally managed and the "ownership of all the activities lies with participants at the grass roots". (Maden, 1984). Shirley Williams, in 1977, although referring to Central Government control, had already stated that school-industry liaison is "an area where no amount of central direction can take the place of local initiatives". (Cmnd.6869).

Present Government Policy

Whilst the Cooper Report faded into insignificance, the Department of Education and Science, and its policy-making, did not. One could not ignore the efforts to 'direct' the curriculum from Government level. At the North of England Conference on 6th January 1984, Sir Keith Joseph, Education Secretary, advocated the formulation of a curriculum policy drawn up by each Local Education Authority, for all pupils of all abilities and aptitudes. He used
the word 'clutter' to explain the content of the curriculum as it existed, and stressed that "the curriculum should be relevant to the real world and to the pupils' experience of it". (Joseph, 1984). "The technical and vocational aspect of school learning," he said, "should have its proper place." (Ibid). Sir Keith Joseph's plans for the curriculum of secondary schools are well documented in the Government White Paper, Better Schools (1985). The Government policy is to "take the lead in promoting national agreement about the purposes and content of the curriculum", and to "encourage schools to do more to fulfil the vital function of preparing young people for work". The creation of new schemes such as the Certificate of Pre-Vocational Education (CPVE), and the Technical and Vocational Education Initiative (TVEI) has given new emphasis to the school-industry debate. Certainly the latter, administered through the "quasi-independent tripartite" Manpower Services Commission (MSC) (Stewart, 1978) has sufficient resources available to provide full backing to school-industry schemes. In formulating new syllabuses, with little concern for minimal expenditure, teachers are able to consider afresh the value of school-industry links. Hence, it may be forecast realistically, that the Department of Industry's Mini-Company scheme will be taken up and used substantially in Industry Year. Pickard (1985) stresses that TVEI, with its massive input of Government monies "is not meant to be permanent, but a 'catalyst' for curriculum change". A full report of the achievements of the Initiative will not be available until the formal evaluation by the National Foundation for Educational Research is published after 1988. It is difficult to speculate the effect of the Initiative once monies are withdrawn.
Criticism of the Manpower Services Commission

Corfield (1984) questions the co-existence of the Department of Education and Science and the Manpower Services Commission, part of the Department of Employment. He says, "might we not recognise the need to fuse training, work and education by integrating the two departments?" Some of those who debate education's role in the education or training of young people, and who see a great void between school and work feel the same. Others, led by Lord Young, speculate about a unification; "training is about work related skills and is intimately connected with employment". (Young, 1983). The Inspectorate connects vocational education with employment:

"Vocational education is to be interpreted as education in which the students are concerned to acquire generic or specific skills with a view to employment." (HMI, 1985).

That such a unification seems more than likely is expressed by Tomlinson (1986) when he said at the North of England conference, "the distinction between education and training is less and less relevant". Enoch Powell, however, in an attempt to uphold a balance between classical and economic education said in The Guardian:

"The state which tries to use its power to exalt and promote the one kind of learning to the disadvantage of the other is an inhuman and barbarous state."

(January 7th 1985).

Many teachers and employers are wary of the Government schemes which provide training for school-leavers prior to taking jobs. The Youth Training Scheme, again controlled by the Manpower Services Commission, is seen by Rees and Gregory (1981) as having "an
educational element built in, to make good the deficits of the education system”.

Recession and Expansion

Such changes, implemented by the Government, have heightened the school-industry debate to new peaks. Stewart (1978) said that education always expands during the 'downside' (recession, or depression) of a business cycle. Conversely, there is a contraction of activity within education during the upsurge of economic activity, counter to the cycle. His counter-cyclical theory relates to the school-industry debate, prevalent amidst unemployment and the decline of manufacturing, in Britain today.

'The State of the Nation'

The 'State of the Nation' was the title of a BBC Radio 4 programme, presented by Redhead, on 13th December 1984. He reported that British ship-building was in decline, that the car industry relied on two-thirds imports, and that only one quarter of the population was employed in manufacturing. Cassels (1979) says that 1.3 million workers have been lost in manufacturing, in the period 1967-79. It is taken for granted that Britain stopped being the workshop of the world a long time ago. A comparison with Germany shows that "60% of the German workforce is vocationally qualified compared with 30% in Britain". (TES, 13/4/84). Owen (1981) in a Centre for the Study of Comprehensive Schools Report says that "economic growth over the last fifteen years has been about 2%". Most of the economic forecasters agree that 2% growth will give us seven million unemployed by the year 2000. (Ibid). When the
Department of Employment published its figures in 1983 (Fig. 3.1) this upward trend of unemployment was confirmed.

Fig. 3.1. Unemployment and Vacancies: United Kingdom 1965-83.

![Graph showing unemployment and vacancies from 1965 to 1983]

Source: Department of Employment (1983c, table C1)

Speaking on the radio programme (op. cit.) Redhead said that:

"lack of technical knowledge is a national scandal. The first computer was made in Manchester, yet we did not adopt the change that was necessary. New technology does not destroy jobs, it implies that jobs must be changed, and created, but this we did not do."

Handy (1986) says that "the British have a determination not to notice what is happening and stumble backward into the future". Presently, "unemployment is having an adverse effect both economically and socially". (Owen, 1981). The moral ethic of work,
understanding unemployment to be shameful, is causing disillusionment. Orwell, in 1937, found that the same reaction existed:

"The thing that horrified and amazed me was to find that many of them were ashamed of being unemployed."

To describe the situation, Musgrove (1973) coins the phrase "post-conventional morality" - an individual's understanding of the moral obligation to work.

Watts (1983) advocates a new leisure class, including job-sharing, part-time jobs, reduction of the working week, longer holidays and a ban on overtime. Handy (1986) feels that individuals must begin to think of "providing a service to consumers, rather than offering five 'O' levels or a degree". He thinks that "adequate education is needed, so that everyone should acquire a portfolio of skills to enable them to meet a need for which they can be paid". (Ibid). Gershuny (1978) believes our society will become an 'Emerging Self Economy', a self-service society.

A mammoth change is therefore necessary in our society, to adapt to the change which has already occurred. To Musgrove (1973), this means:

"anticipating the displacement of work from the centrality of our lives since Luther brought it out of the monasteries and sanctified it for profit."

Certainly, we seem to be "unique in our loss of the stable state" (ibid), experiencing change unprecedented. It is against this backcloth that the school-industry debate has attained its highest peak.
The Role of Education

How is education affected by the state of the nation? May (1979) agrees that "society does expect its schools to be aware of the country's professional and industrial needs and to do something about them". The implications of the new technology will probably only improve the job chances of a privileged margin of pupils (Rees and Gregory, 1981), and so education must address itself to the question of how to educate for the 21st century - for the 'Alternative Society' which Toffler called an "adhocracy" (Musgrove, 1971), a society formed for the specific purpose of meeting employment and economic needs.

Evans (1983) saw the bureaucracy of education, controlled by the MSC, the DES and the LEAs as a stumbling block to future curriculum development, when he said:-

"will the LEAs, the DES and the MSC, allow the teachers the opportunities and resources to bring about reforms - to establish new curricula pathways, which are flexible, and meet the needs of young people?"

Watts (1983) thinks that the increased attention and value given to work outside unemployment, challenges (and threatens) the present bureaucratic structure of the education system. Education institutions, he says, "should act as catalysts of change towards more positive scenarios of the future". Weiner (1981) blames the bureaucracy within education for attempting to gentrify the working class. He says the chief agent transmitting these standards was the institution that first provided a negative view of the life of business and industry - the education system.
The Gulf Between Education and Industry

Industry has always, to some extent, voiced its discontent with the education system. 'Trespassing', a book which is a collection of various businessmen's thoughts about education, is particularly damning of the teaching profession. (Peacock, 1984). Educationists are accused of having a "closed-shop mentality" (Brophy, 1984), and of being "dogmatic" (ibid). Weinstock (1976), in an article entitled, "I Blame the Teachers", made a direct attack:

"teachers, having themselves chosen not to go into industry, often deliberately, or more usually unconsciously, instil in their pupils a similar bias. In doing this, they are not serving the democratic will."

Robert Lindley (1981) takes the blame further:

"the poor, long-term performance of the British economy is believed to be due partly to the lack of educational policies."

Jackson (1979) puts the Trades Union Congress view:

"teachers lack the experience needed to understand the nature of industrial employment. Teaching will have to reflect the real differences that exist in industrial society."

A wider view is expounded by Arthur (1979) who cites industry as equally responsible for its bad image. Describing the vicious circle of low esteem (Fig.3.2), she says that "the education system, the teachers, Local Education Authorities, industry itself, are all involved in emphasising the bad image that industry has gained". 
Fig.3.2. The Vicious Circle of Low Esteem

![Diagram of the Vicious Circle of Low Esteem]

Whilst the employers complain of low standards in literacy and numeracy amongst recruits, it is notable here, that part of the low esteem of industry in society is derived from those within industry, critical of low industrial performance. If the problems arise within education, industry provides no correcting mechanism. Whilst criticism appears to be rife, there seems to be little positive comment about what industry expects education to produce. Corfield (1984) requires the "mismatch between supply and demand to be overcome by the education system". Leeson (1983) points out that "industry wants schools to encourage certain attitudes in pupils compatible with an efficient reliable workforce". This, according to the author, may be interpreted as a narrow view by the 'conservative' teaching profession.

Research performed by Maquire and Ashton (1981) "highlights a great gulf between the majority of employers and educationists". Of three hundred and fifty institutions researched, 25% of employers were very critical of the education system.

Industry's complaints are traditional gripes that can be found to appear at various points throughout this century. A London workstudy, (Townsend et al, 1982), suggests that "many employers do
not in fact know what is required to perform jobs in their own organisations. This brings us to the conclusion, according to Jamieson (1985) that "employers, like most others in the school-industry field, do not have any well-founded notions of the sort of school education which fits the demand of economic efficiency".

The Department of Industry, involved in the school-industry field through the function of its Education-Industry Unit, and well-grounded in a knowledge of present day practice, gives a more consoling view of the role of education:

"Education offers the best hope of making progress."

(Bates, 1979).

Certainly, the findings of the Schools' Curriculum Industry Project (Jamieson and Lightfoot, 1982) give a more favourable view of schools, and teachers in particular. It was found that "teachers have a comparatively sophisticated view of industry, perhaps more than most would believe" (ibid), and that "there is no evidence to suggest that teachers are the source of pupil attitudes towards industry and trade unions". (Ibid). Indeed Jamieson (1985) has shown that, after an Understanding British Industry one-year secondment, all teachers involved "maintained that their overall picture of industry had changed, and that the change was generally a more 'positive' attitude". Generally, one could say that there is room for some criticism from industry, and that education can improve, doing its part to better industry's image, by using such link schemes as feature in this research.

Industry Year 1986

Industry Year was initiated by the RSA which aimed to increase
understanding of the role of industry and its service to the community. The basic premise of Industry Year was, that school leavers and graduates have an anti-industrial attitude. The Education Working Group meeting in July 1984 saw its role "to boost activities, with the recognition that the problem in the past has not been lack of ideas, but lack of effective delivery". (RSA, 1984). It suggested the establishment of school-based working parties to look at curriculum development, to be made up of industrialists, educationalists and unionists. At a later meeting (RSA, 7/11/84) the Working Group voiced its intention to build upon the work of the Schools' Curriculum Industry Project, and to encourage the establishment of a school company in every secondary school by the end of 1986. Bates voiced the intention of the Department of Trade and Industry to complement Industry Year's aims, by extending the mini-company scheme, and encouraging every LEA to have one schools-industry worker. The concern of the Industry Year committees was that Industry Year should have a lasting impact on the curriculum, through the 'big-bang' activities of the year as well as through discussions behind the scenes. Tolley (1984), Chairman of the Education Working Group, requires a "sense of balance between the 'big-bang' activities of 1986, and activities that will be more in the nature of useful and necessary 'ripples in the pool' that will be continuing beyond it". It can be noted that the strategies for communicating school-industry innovation to schools are vitally important.

All LEAs and Headteachers received documentation, outlining the intentions of the Education Working Group. Various agencies, such as Understanding Industry, made known their intentions for increased
activity in Industry Year (chapter 4). It remains to be seen how successful such an event, with increased interest and monies, can be, in attempting to change the school curriculum in the long-term. At the time of writing no evaluations of Industry Year were available.

THE CURRICULUM - CONSTRAINTS, CONFLICT AND CLIMATE

Whilst there are changes occurring in society, and pressures put on education to change as a result, consideration should be given to the fact that there are constraints and conflicts within the education system which impinge upon the nature of the school curriculum and the role of the teacher.

The Present Climate

According to Bloomer (1985), most involved with education will agree with the broad concept of school-industry liaison, and the author is convinced that 1986 being Industry Year presents a dramatic opportunity to reassess what schools and industry can achieve together. However, the present developments within education have thrown the system into turmoil. Whilst attempting to give guidelines for the General Certificate of Secondary Education syllabuses, and by introducing the Technical and Vocational Education Initiative, the Government has centralised education to a certain extent. There is some resistance, exemplified by Chanan (1981) who says that:

"if there is one product which for the health and prosperity of the nation should not be standardised, it is people's minds."
With teacher assessment linked to a future pay award being disputed, the climate in schools is not conducive to an enormous increase in take-up of the work of school-industry agencies. In fact, so many link schemes exist (eg. Appendix 43), that the market (the schools) may soon become saturated after such bombardment in the past. The existence of the phenomenon now commonly known as "link-wilt" (RSA, 1984) suggests that there is a limit to the number of local contacts that can be used over a period of time, particularly in more rural areas.

The school-industry movement "is not an homogeneous collection of groups united by a common purpose, except in the most general of senses". (Jamieson, 1985). Hence, teachers are faced with a "formidable and unfortunately competing catalogue of agencies, organisations and conflicting propaganda" (Pollard, 1984), so that the scenario is one of confusion in many cases. Although there is "but a score of Local Education Authorities with no school-industry post" (Jamieson, 1985), the roles of school-industry liaison officers, like their official titles, vary considerably (Wood, 1983), as does the school curriculum in different Authorities.

According to the author, sufficient lack of central control over the curriculum is required, to allow for local innovations, whilst giving teachers a clear view of opportunities for liaison which exist nationally. From this overall view, they would be able to make an informed choice for local implementation. This would mean a central, co-ordinating body which liaises with schools, but which has no policy, or administrative control over school-industry agencies. If this is a main aim of the Association for Industry and Education Co-operation (AIEC), then it is a welcome development.
Unfortunately, at its inaugural meeting held in October 1985, the Association encountered various problems in deciphering its aims for future action.

So many agencies and individuals are active in the school-industry field, as is exemplified by the structure of the various Industry Year Committees, that Pedley (1982) has been caused to state, in expressing his reservations about the current position of the school-industry debate:

"we are in danger of building up a theoretical elephant, and ending up with a practical mouse."

Frame Factors

Various "frame factors" (Orlowsky and Smith, 1978), which influence the curriculum and 'frame' the operation of agencies in schools, were examined by Bloomer (1985) as part of research attempted by the Advisory Committee for Teacher Education in the Mid-South (ACTEMS). One hundred and eighty-three schools were surveyed with a questionnaire entitled 'Linking Schools and Industry'. Fig.3.3 indicates the rankings, by teachers, of problems connected with school-industry liaison activities.

In this research, invited comments on the problems associated with school-industry work showed that shortage of time was emphasised, often in conjunction with the higher priorities given by staff and parents, to examination work within subject specialisms.
### Rank Order of Problems with Teachers' Involvement in School-Industry Link Schemes

<table>
<thead>
<tr>
<th>Rank order</th>
<th>Problem Description</th>
<th>Percentage reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Shortage of time in competition with other activities</td>
<td>85</td>
</tr>
<tr>
<td>2</td>
<td>Limited range of firms in the school area</td>
<td>28</td>
</tr>
<tr>
<td>3</td>
<td>Some feeling in the school that this work has low priority</td>
<td>28</td>
</tr>
<tr>
<td>4</td>
<td>Shortage of funds</td>
<td>27</td>
</tr>
<tr>
<td>5</td>
<td>Shortage of staff with relevant background and experience</td>
<td>21</td>
</tr>
<tr>
<td>6</td>
<td>Difficulty in identifying suitable lines of approach</td>
<td>19</td>
</tr>
<tr>
<td>7</td>
<td>Negative attitudes of some pupils in the current recession</td>
<td>15</td>
</tr>
<tr>
<td>8</td>
<td>Shortage of staff with relevant interest</td>
<td>14</td>
</tr>
<tr>
<td>9</td>
<td>Lack of interest on the part of local industry and commerce</td>
<td>12</td>
</tr>
<tr>
<td>10</td>
<td>Lack of relevant local in-service facilities for staff</td>
<td>12</td>
</tr>
<tr>
<td>11</td>
<td>National shortage of appropriate teaching materials</td>
<td>11</td>
</tr>
</tbody>
</table>

### Subject Status

Reeder (1979) believes that subject specialism encouraged by this country's examination system, a product of the Victorian concept of the German model of the University, "laid the basis for a chief impediment to an industrially related curriculum". Durkheim, in the 19th century wrote:
"a divergence has occurred between the occupational interests of teachers in contemporary lycees, shut up in their own subject specialisms, and other groups in the community."

It is true to say that a "subject dominated curriculum still exists today, in which decisions about the worthiness of some kinds of knowledge have maintained the predominance of academic or so-called high-status subjects at the expense of the needs of many pupils and even society as a whole". (Leeson, 1982).

In 1968, the Schools' Council Enquiry No.1, found that most teachers gave low priority to vocational preparation, whereas most school leavers wanted their teachers to provide the necessary skills for future employment.

Pollard (1984) states the "crude truth": "The secondary school curriculum is subject-based and very little use is made of its connections". Where attempts have been made to break down subject-barriers leading to inter-departmental co-operation, the developments are restricted owing to the examination syllabuses. School-industry link schemes, according to the Oxford Delegacy of Local Examinations, "have generated considerable enthusiasm in those who-have been involved, but their incidental nature has given them an extra-curricular image for older secondary pupils". (Leeson, 1982). Such 'low-status' subjects do not rate highly while "goals in schools are public examinations, and not self-confidence, or the ability to deal with others". (Raven, 1977).

It is all too easy to involve pupils of lower ability, who do not have such rigid timetable patterns related to examination subjects, in new curriculum innovations. Pollard (1984), a
Headteacher, affirms that many educationalists, to avoid the problem of the examination timetable, "applaud the implication that only the less-able should be clients in the education-industry link". It seems obvious to suggest that materials are needed "not for subjects within the curriculum, but for the whole curriculum" (Booth, 1975), and across all abilities. Hence, there is a call for more non-examined work in schools, which emphasises experiential learning. A reticence of some to take a cross-curricular approach is based upon a certainty that their pupils would be put at a disadvantage if others did not take the same approach.

External Examinations

Schools, however, are selecting agents for the job market. They are particularly vulnerable, "the direct producer of a major and expensive commodity - labour". (Jamieson, 1985). Whilst schools exhibit such efficient functionalism in devising a system of early differentiation and allocation, it is "ironic that they should be accused by some of having a curriculum whose effects are disastrous to the economy". (Leeson, 1982).

It is difficult to understand that at a time when the present school-industry movement emerged strongly, the proportions of pupils attempting public examinations before leaving schools, and those leaving with 'A' level qualifications both doubled. (Central Statistical Office, 1973). Perhaps the 'back-to-basics' movement which emerged alongside the Great Debate, encouraged the dichotomy which now exists between standards of literacy and numeracy and the necessity for life skills.

Watts (1981) sees the main reason for the primacy of
examinations "lying in the powerful control mechanism it provides within schools". It delivers control into the hands of the teacher. Perhaps teachers derive a certain amount of professional security from the external examination system. They seem to place a great amount of stress on the importance of educational qualifications, as do parents, an emphasis which employers, according to Maquire and Ashton (op.cit.), do not share.

How is the establishment of a curriculum based upon conflicting demands to be avoided? Tomlinson (1986) says that:

"traditional examinations and the school timetable will have to be jettisoned if the examination system is to meet the challenges of work and unemployment in the post industrial world."

With the onset of profiling, perhaps we witness the beginning of the end of subject-knowledge testing and norm referencing, the end of a system of built-in failure rates. For this to be the case, the modular timetable, according to Tomlinson (ibid) needs to become "the teachers' servant and not their master".

The Examination Boards

The Examination Boards have developed a number of syllabuses in an attempt to meet the demands of the Great Debate (eg. Appendix 43). The new examinations, other than various Economics syllabuses, include:

'Industrial Studies', 'A/O' Level (Joint Matriculation Board)
'O' Level "Industrial Studies" (the Associated Examining Board)
'A' Level 'Industrial Studies' (the Oxford Board).

The Associated Examining Board has introduced an 'A/O' Level
'Personal and Business finance', but the Board is criticised by Leeson (1982) for having an academic, and not experiential approach, which is inhibiting the cross-curricular work. 'A' Level 'Industrial Studies' however, he applauds, as giving a means of encouragement to academics for entry to industry.

Careers Work

The findings of the research conducted by Bloomer for ACTEMS in 1983, concluded that apart from Careers work, and specialist examination syllabuses, involvement with industry for most pupils appeared to be slight. The questions thus arise as to whether careers work in schools has an occluding effect on wider curricular activities relating to industry and commerce, and whether there is a danger of assuming that all that needs to be taught is included under the heading of Careers. There is a further danger, that liaison will be confused with careers and recruitment. In Bloomer's findings, the aim of liaison ranked first amongst teachers was "helping pupils to prepare for decisions about future careers".

A description of the development of Careers work in schools may clarify the present position. Ward (1983) points to three separate models of Careers work:

(i) The work-finding model

Careers guidance in the early 60's meant helping pupils to find future jobs.

(ii) The individualist model

A new model of the 70's based on the individualist ideology. Careers education became a developmental and educative approach, providing choice rather than a career. Careers
Education became a separate time-tabled subject, or integrated into Social and Personal Education, or General Studies.

(iii) The economic model

The newest model, challenges individualist ideology, and demands that careers guidance should exist to review the needs of the employment structure. The focus, owing to unemployment, is seen to be on employability.

Many, thus, see careers work today intricately linked with industry, because of the emphasis placed on work experience, as a result of the new ideology.

Work Experience

Much has been written about work experience in the past few years, by Eggleston (1982) and Watts (1983), among others. Several school-industry agencies function by providing pupils with work experience. Project Trident, for example, aims to relieve the teacher of the administrative problems and to set up links with industry for a period of three weeks' work experience. Watts (1986) says that "the measurable outcomes of work experience are positive, if modest". Whilst work experience is seen to focus on work tasks, and work visits on work processes, work shadowing has a primary focus on the role of the worker. It is work shadowing that is now becoming popular, being supported by the Schools' Curriculum Industry Project, and analysed by Watts, for the Project in SCIP News 14. Work shadowing offers students a number of opportunities to learn about industry, and can also help to extend the two-way links between school and firm, known as 'twinning'.

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Conflicting Theories

The various theoretical traditions of the school curriculum have left us a legacy which has led to an unsystematically framed, conflicting, dynamic entity. The idea of knowledge being worth having for its own sake led to the subject-centred curriculum, which had its foundation in the classics approach to education, the old grammar school tradition of producing fine Christian gentlemen. In the 1960s and 70s, education was thought to be a great stabilising factor, "the continuation of a culture, rather than a means of coping with a changing culture". (Nisbet, 1982). Certainly, schools were "not agents of change". (Hoyle, 1969). Demands for a broader, vocational curriculum, gave rise to the child-centred view of education, one which is more concerned with educating the 'whole person', to develop all aspects of personality. Whilst Watts (1986) sees the education of the whole person as inclusive of the role of the worker, most who hold the child-centred view would uphold formation of a good moral character as being more important than education for the needs of the economy. Chanan (1981) has taken the theorising further. He says that "our model of the educated person must be subordinate to a model of an educated community". Jamieson (1985) has noted that during a time of economic decline, the curriculum veers towards conforming to the needs of the economy, whilst, during an economic boom period, more consideration is given to the needs of the individual. Not only do curricular trends follow the vicissitudes of the economy, but they are still heavily weighted by the traditions discussed previously. Hence, the curriculum is held in fine balance, described on the one hand, by Jamieson (ibid) as "showing clear signs of becoming more
industrially orientated", and on the other hand by Leeson (1982) as being "for the majority of young people a cruel deception".
INTRODUCTION

The multiplicity of agencies is the unique feature of school-industry work. No other aspect of the curriculum has had to live with such a wide range of interests and pressure groups. They range from Understanding British Industry (UBI), which has a very wide curricular remit, to those with a specific subject area viewpoint, such as the Standing Conference on Schools' Science and Technology (SCSST). The pattern is further confused by a number of small specialist organisations, whose purpose is narrowly defined, such as Project Trident, Young Enterprise (YE), Understanding Industry (UI) and Index. (Appendix 43).

Origins

Following the Ruskin speech in 1976, after "liaison had become institutionalised" (op. cit. pp. 3, 11), numerous attempts to link schools and industry were initiated. At the same time, agencies initiated in the 1960s, consolidated their positions in the 1970s, e.g. Young Enterprise. A conference held at St. George's House, Windsor, in 1978, entitled, "Let a Thousand Projects Bloom", supported the random development of school-industry projects. (Cooper, 1981). Many were locally based, urged on by the Schools' Council Industry Project, and involved concepts such as twinning - the linking of one business and one school. Figure 4.1 shows the commencement of several national school-industry agencies.
Fig. 4.1 A Chronology of Various National School-Industry Agencies

<table>
<thead>
<tr>
<th>DECADES</th>
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</thead>
<tbody>
<tr>
<td>1986</td>
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<td>1985</td>
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<td>1982</td>
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<td>1980</td>
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<td>1972</td>
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<td>1971</td>
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<td>1970</td>
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<td>Late 60's</td>
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<td>1964</td>
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<td>1963</td>
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<td>1960</td>
</tr>
</tbody>
</table>

For Key to Fig. 4.1 see next page.
Key to Fig.4.1

ASE  Association of Science Education
BAAS  British Association for the Advancement of Science
CBI  Confederation of British Industry
CRAC  Careers' Research and Advisory Centre
DTI  Department of Trade and Industry
ECIS  Engineering Careers Information Service
NCST  National Centre for Schools' Technology
SATRO  Science and Technology Regional Organisation
SCIP  Schools' Curriculum Industry Project
SCSST  Standing Council for Schools' Science and Technology
SICCI  Schools' Information Centre on the Chemical Industry
UBI  Understanding British Industry
UI  Understanding Industry
YE  Young Enterprise

A CLASSIFICATION OF SCHOOL-INDUSTRY AGENCIES

An attempt to study school-industry organisations was made by Mr. Neville Cooper of Standard Telephones Limited in 1980 (see chapter 3). He succeeded in outlining activities, but his research was mainly descriptive and he did not attempt any grouping of the organisations he contacted. At best, Cooper (1981) mentions "several are devoted to the interests of particular sectors of business" but otherwise he refers to them all as "link-schemes". The SATRO panel reacted strongly to this:-

"Mr. Cooper appears to regard all the various organisations, including the SATROs, as link-schemes, whereas there are 4 main types of organisations
within the generic title 'school-industry liaison'.


These it saw as:-

- "Those organisations whose main activities are in careers work, careers education and the production of supportive literature and audio-visual materials etc.

- Those organisations whose main activities are concerned with arranging work experience for pupils.

- Those organisations whose main activities are concerned with arranging an improved understanding for adults, e.g. teachers into industry, industrialists into schools, showing ideas on the nature of management etc.

- Those organisations involved in considering changes in the curriculum associated with a better understanding of the world of work, and changes that are brought about by technological, economic and social factors, etc..."

Several agencies fall into more than one of these categories. It is believed by the author, that ultimately, all school-industry liaison leads to some effect on the school curriculum, no matter what the strategy employed. The SATRO panel classification falls short of being able adequately to describe the picture as it is today, for there is increased involvement from many different sectors, all of which involve school-industry activities. Appendix 43 attempts a classification by incorporating examples of as many types of school-industry related activities as possible. The examples are agencies which responded to the author's original
enquiry letter (Appendix 2) and thus they formed a basis for this investigation. Such examples are found under eight headings, which are:

- National organisations, embracing specific or numerous tasks
- Careers orientated organisations
- Subject-linked organisations
- Industrial/Commercial organisations
- Professional Bodies and Training Boards
- Local Centres and Committees
- Publisher Involvement
- Examining Bodies (Appendix 43)

Those agencies which have been chosen for in-depth study, SCIP (as a backcloth to the research), YE and UI, fall within the first category. The author's choice was governed by the nature of the agencies' involvement in County X (chapter 2). The work of the agencies is aimed at the curriculum of the school, but aims to affect it in varying areas by diverse methods. SCIP has a cross curricular approach, UI is aimed at Business Studies and Economics pupils and YE is defined as 'extra-curricular'. In order to evaluate the role each has in curriculum change, a descriptive account, constructively introducing each scheme to the reader, follows.

YOUNG ENTERPRISE

The Development of Young Enterprise

In 1959, Walter Salamon, a United Kingdom banker, visited the United States and was impressed by a scheme called Junior Achievement Incorporated, which involved setting up small businesses
in schools. In 1960, he initiated a similar scheme, called Young Enterprise, which was registered as a charity with the Charity Commissioners. The pilot project in 1963 was with 113 school children in Chatham.

The Aims of Young Enterprise

In Achiever News (1984), the monthly publication of YE, the scheme's aims have been outlined. These are that all participants should have:

- an understanding of the working of a limited company engaged in the manufacture of a product,
- obtained some knowledge of the usual structure of a business organisation and of the various functions of line management and an awareness of the respective responsibilities and mutual relationship of the major departments,
- acquired an appreciation of the role of the production process in an industrial enterprise,
- obtained an understanding of marketing principles and of sales function and an appreciation of the importance of the prompt satisfaction of customer demand, with particular reference to pricing, quality and reliability of service before and after sale,
- an appreciation of the importance of the success of a business, of cost accounting and financial procedures,
- obtained an appreciation of the importance of good industrial relations,
- a sense of responsibility and self-confidence to acquire experience of decision-making,
an appreciation of the value of co-ordinated team effort as applied to the solution of problems of work in an industrial enterprise.

The Scheme's Administration

YE is a scheme for 15-19 year olds, called Achievers, who may be part of the Youth Training Scheme, or similar schemes, trainee apprentices, or still at school. It is administered by a Director General, 3 Directors of Regions, 5 Regional Directors (seconded for 1 or 2 years) and District Organisers (Fig. 4.2). The Local Education Authority may be represented on the Area Board and may co-ordinate school involvement. The District Organisers help to find local industrialists who are willing to become Advisers for the scheme. Ideally there should be sufficient Advisers to advise on accountancy, production and marketing. School involvement may be initiated by the Company, by the school, or via the Local Education Authority.

In 1980, Taylor described YE as "the fastest growing movement for youth this side of the Atlantic". The growth of YE, which has now spread to several other countries, is ever-increasing in Britain, possibly due to the present Government's emphasis on small business development. This rate of growth of YE is borne out by the graph in Fig. 4.3.

A Description of the Scheme

YE involves setting up a company, electing workers and managers, and thinking of a product to be manufactured, or services to be performed. The Company chooses its name, sells shares (£130
Fig. 4.2 The Administrative Hierarchy of Young Enterprise

- **Director General**
- **Directors of Regions**
  - **Scotland, N. England & N. Ireland**
  - **Eastern**
  - **Central, Southern & Western**
- **Regional Directors**
  - **N. of the Thames**
  - **S. of the Thames**
  - **South and S. West**
  - **S. Wales**
  - **London**
- **District Organisers**
- **Area Boards**
  - e.g. **County X**
- **Central, North, South Boards,** comprised a County Co-ordinator, District Organiser, LEA representatives and
  - **Advisers**
  - **School Companies**
Fig. 4.3 The Number of Young Enterprise Companies in the European Federation

<table>
<thead>
<tr>
<th>Year</th>
<th>Great-Britain</th>
<th>France</th>
<th>Belgium</th>
<th>Switzerland</th>
<th>Sweden</th>
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<tr>
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<tr>
<td>1984</td>
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</tr>
</tbody>
</table>

Legend: 
- Great-Britain
- France
- Belgium
- Switzerland
- Sweden
share capital was the limit for 1984-5) and the Achievers market, produce and sell. They have regular board meetings and choose whether to pay wages or not. The Company liquidates in May, after nine months, when fifty-five hours of Company time have been spent. The Advisers and Achievers meet either on educational or industrial/business premises. In Great Britain, YE is usually held after school hours and is thus termed extra-curricular, although it is part of the experiences offered to the pupil by the school. In the United States, Junior Achievement Incorporated is part of the curriculum in Ohio and New York State. In Great Britain, this may well become a more common occurrence when YE attempts a merger with UI. (UI, 1986).

A Mark of Success?

In chapter 2, it was stated that the scheme's success is difficult to measure in terms of its aims. YE publishes its examination results as a mark of its success. The Achievers have the option of sitting an examination (Appendix 44, Sample Paper), and more than half choose to do so. The paper attempts to investigate whether Achievers have an appreciation of the functioning of a small business by posing questions which require essay-type answers. The syllabus is unwritten, but consists of the experience of Achievers whilst on YE. A letter from the Director-General to the author indicates that additional marks are given when an Achiever quotes from "real happenings". The steady growth of YE, measured by its examination results, is exemplified by Fig.4.4.
**Fig. 4.4 An Analysis of Examination Performance by Achievers.**

1978-1985

<table>
<thead>
<tr>
<th>YEAR</th>
<th>DISTINCTION</th>
<th>CREDIT</th>
<th>PASS</th>
<th>UNGRADED</th>
<th>NO. OF PUPILS</th>
<th>NO. OF COMPANIES</th>
</tr>
</thead>
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<td>2</td>
<td>56</td>
<td>347</td>
<td>284</td>
<td>689</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>0.29%</td>
<td>8%</td>
<td>50%</td>
<td>41%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1979</td>
<td>6</td>
<td>86</td>
<td>534</td>
<td>324</td>
<td>950</td>
<td>123</td>
</tr>
<tr>
<td></td>
<td>0.63%</td>
<td>8%</td>
<td>56%</td>
<td>34%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>13</td>
<td>101</td>
<td>1,181</td>
<td>814</td>
<td>2,109</td>
<td>232</td>
</tr>
<tr>
<td></td>
<td>0.62%</td>
<td>4.8%</td>
<td>56%</td>
<td>38%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1981</td>
<td>57</td>
<td>572</td>
<td>1,715</td>
<td>515</td>
<td>2,859</td>
<td>approx 350</td>
</tr>
<tr>
<td></td>
<td>2.0%</td>
<td>20%</td>
<td>60%</td>
<td>18%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1982</td>
<td>45</td>
<td>405</td>
<td>3,096</td>
<td>940</td>
<td>4,486</td>
<td>414</td>
</tr>
<tr>
<td></td>
<td>1.1%</td>
<td>9%</td>
<td>69%</td>
<td>21%</td>
<td></td>
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</tr>
<tr>
<td>1983</td>
<td>105</td>
<td>588</td>
<td>3,051</td>
<td>1,127</td>
<td>4,841</td>
<td>469</td>
</tr>
<tr>
<td></td>
<td>2.0%</td>
<td>12%</td>
<td>63%</td>
<td>23%</td>
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</tr>
<tr>
<td>1984</td>
<td>87</td>
<td>774</td>
<td>3,624</td>
<td>779</td>
<td>5,284</td>
<td>540</td>
</tr>
<tr>
<td></td>
<td>1.7%</td>
<td>14.6%</td>
<td>68.6%</td>
<td>15.1%</td>
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<td></td>
</tr>
<tr>
<td>1985</td>
<td>83</td>
<td>1,073</td>
<td>4,127</td>
<td>644</td>
<td>5,927</td>
<td>560</td>
</tr>
<tr>
<td></td>
<td>1.4%</td>
<td>18.1%</td>
<td>69.6%</td>
<td>10.9%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

65+% | 55-64% | 40-54% | under 40% |
Distinction | Credit | Pass | Ungraded |

**The Young Enterprise Competition**

Achievers who gain the highest examination passes are invited to the United States to take part in the National Conference of Junior Achievement Incorporated. In Great Britain, each Company
presents its products and final report before a local panel of judges at a Presentation Evening arranged locally. The winning Company takes part in the National Final. Trophies are presented by sponsoring companies.

**Summary**

In 1980, YE won the Certificate of Recognition under the Education for Capability scheme of the Royal Society of Arts. After this achievement, Maier (1982) states, "Young Enterprise is helping young people to become responsible, decisive and enterprising". Certainly, the experiential approach has a number of advantages, summarised by Bray (1983), who describes YE as a particular kind of work experience, "learning how to become a teenage tycoon". She says:

"through the roles they assume, the responsibilities they meet and the risks they must take, the Achievers have come to terms with the human, economic and industrial forces of a real world . . . . albeit on a mini-scale, but a scale which makes the risks, rewards and responsibilities intelligible."

-Maier (1982) sees YE as "creating a mood in society which values enterprise as it deserves to be valued". He maintains that "learning by doing" and "for doing" helps to effect a psychological, as well as an educational preparedness for the world of work, and expects that it will "influence the eventual creation of new employment opportunities". (Ibid).
Future Developments and Trends

To create more employment by encouraging 'Enterprise' is a trend encouraged by the present Government. Hence, during Industry Year, the National Westminster Bank and the DTI sponsored the Mini-Company scheme, which aims to introduce the idea of establishing small businesses to all school-children, not merely those of a particular ability. Bray (1983) has suggested that the conceptual level of YE is too high, that the documentation is overpowering, and that the help of an accountant is definitely needed. Whilst YE is designed for only a limited range of senior pupils, and is further restricted by the number of firms able to sponsor individual companies, the Mini-Company scheme represents a very real alternative. Bray (ibid) notes also, that YE's primary concern is management training, whilst the Mini-Company scheme emphasises the product. Since there is an influx of financial aid for the latter scheme, and the stated aim of the scheme is to affect every secondary school during Industry Year, it remains to be seen whether YE will achieve the same rate of success in the next few years. It may well have a role as the natural follow-on to the simpler scheme, when pupils reach the sixth form.

UNDERSTANDING INDUSTRY

Introduction

Understanding Industry was devised in 1976, by Gerry Richardson, the Managing Director of Investors in Industry Consultants Limited (then ICFC-Numas). His sister, a Headteacher at a Comprehensive School in the Thames Valley, prompted him, as she deplored the lack of knowledge school leavers had of wealth creation
and the operations of companies. In 1978, three pilot Authorities (County X being one) ran the scheme, and in 1979, it went national.

Aims

UI aims to "demonstrate to sixth formers, the future 'Captains of Industry', how a company operates and how necessary it is to create wealth". (UI, 1983). Various aims are listed in its publications, for example:

- "To help schools to provide students with an understanding of industry and commerce without significantly adding to the administrative work of schools, working within the existing timetable arrangements and making full use of available teacher resources."

- "To provide sixth form students with an understanding of industry and commerce."

- "To present this understanding in a regular structured pattern through the medium of the school timetable."

- "To involve teachers in the vital subject of creating the country's wealth."

In June 1984, UI stated its aim as:

"To improve first year sixth form attitudes to commerce and industry. The Nation's future prosperity depends on the quality of our future leaders of commerce and industry. We need to be talking to them now."
The Scheme

A publication from UI in October 1983 describes the scheme as having fourteen Regional Organisers at that time. With the prior agreement of the LEA, each Regional Organiser sets out to provide a course of eight, one and a quarter hour structured talks in up to thirty schools each year. The eight sessions are entitled:

- Introduction (it is recommended that the Metal Box booklet *Industry in Close-Up* is used).
- Finance and Accounting
- Marketing
- Technology
- Manufacture and Production
- Human Relations
- Management
- Summary (usually involves a panel of speakers).

Speakers

The speakers are volunteer managers from local companies. They are experts in each particular topic and they are encouraged to discuss their own experience using illustrations from the life of their own company, and to adopt a highly participative classroom style. (Speakers' notes, UI, 1985). UI (October 1983) states that there is "no recruiting intention". The speakers are provided with prepared notes and overhead projector slides. A preliminary meeting at a school is organised by the Regional Organiser, who books the speakers to talk. At this meeting, speakers are given speakers notes and are able to meet the teachers, who have their own instructions, given by UI. (Teachers' notes, UI, 1985).
Funding

The advent of the CBI's UBI project about the same time as UI caused some confusion. (The Director, November 1982). The UBI project naturally shows more financial support from companies with CBI membership. Companies were prepared to release speakers, but financially supported UBI. However, the Department of Industry has pledged financial support for UI until fifty percent of sixth forms are covered. UI is also supported by the Industrial Education Trust, donations and covenants from over two hundred and fifty companies; the DES pays the salaries of the Regional Organisers and headquarters staff, and for the printing of the text-book. A handbook released in 1985 entitled Understanding Industry Today (Richardson, 1985) replaced a series of six booklets. The cost of the text is met by the schools, who pay £2.00 for every pupil who takes the course and the Local Education Authority pays an initial registration fee of £1,000. All finance is channelled through the Industrial Training Foundation, a registered charity controlled by ten trustees. It is estimated that a region costs £10,000 per annum to operate UI. (UI, 1983).

The Development of Understanding Industry

"It is believed that no other education/industry-commerce link scheme has approached this rate of expansion or level of contact in its first six years." (UI, 1985). (See Fig.4.5). Nearly 30,000 pupils have been reached. At present, there are 19 Organisers, and a Berkshire seconded teacher who develops course material. There are at present 19 regions, reaching 15% of schools in England and Wales. Emphasis is now being placed on the quality of the courses,
helping the speakers with techniques for communication. The Regional Organisers also have to attend a training course organised by the Bank Education Service.

Fig.4.5 The Expansion of Understanding Industry Courses 1982

![Chart showing the expansion of Understanding Industry Courses 1982](chart.png)

Previous Research

In May 1983, Birtwhistle carried out an appraisal of the UI course. He worked for an electronics firm and was not an educationalist. He concluded, by assessing attitudes, that the scheme had been moderately successful in some schools, but ineffective in others. His overall conclusion is that the scheme represents an ambitious programme with some unique features and deserves continuing support. However, based on a very small sample,
with only four schools responding, his results are questionable. In a letter dated 20.7.84, the Consultant and Project Manager wrote to the author:

"... the Birtwhistle Report is out of date.

- Understanding Industry is a first steps programme and should be seen as the first stage of a larger project.
- Understanding Industry is increasingly interested in supporting the curriculum, for example 'A' level Business Studies."

The Birtwhistle Report criticises the delivery of speakers. Understanding Industry has responded to this, as in its latest copy of notes for speakers (055HU/1-4, 1985) it reaffirms:

"we are strongly encouraging the managers, who volunteer to lead sessions in the classroom to involve the students in participative exercise."

Similarly, Warner (1985), who researched the opinions of fifteen Regional Organisers by questionnaire, stresses the need for such exercises - "managers should be strongly encouraged to incorporate a game or simulation into their presentation". His summary is that "Understanding Industry has been achieving its aims. It should anticipate continued growth and increased effective influence in education." (Ibid).

Industry Year

To achieve further influence, UI stated its aims for Industry Year 1986. (Ref. 0739U/9). It is significant that the extent to which participative exercises are being stressed, has resulted in
the intention to collaborate with YE. The further aims were to

- increase the number of courses to 320
- publicise activities
- produce a manual of 25 participative exercises
- hold a reception for managers, and give them a small momento for their contribution to Industry Year
- organise a special event for the 1,000th course
- to hold a special course in each region.

THE SCHOOLS CURRICULUM INDUSTRY PROJECT

DEVELOPMENT

The Industry Project was proposed by the TUC, and discussions had taken place with the CBI and the Schools' Council, long before the Ruskin Speech at Oxford in 1976. The pilot phase of SCIP was initiated in 1977, and involved five Local Education Authorities chosen for their contrasting industrial areas. County X was one of these. In 1981, 21 LEAs were involved, in 1983, 36, and in 1985, the number rose above 50. Since 1980, the Project has been in its Dissemination and Development Phase, and a measure of its success has been its survival under the School Curriculum Development Committee, after the disbanding of most of the Schools' Council projects. A new phase* in the development of the Project, emerged from consultations involving the DES, DTI, CBI, TUC, individual companies and LEAs in January 1987.

*The School Curriculum Industry Partnership.
The Project's Aims

Unlike other school-industry agencies, SCIP considers the mechanism of curricula development. It differs from other agencies in that it takes into consideration the character of measures which schools adopt. It is essentially concerned with making change permanent in schools. Hence, its aims focus primarily on the school curriculum:

"To bring about changes in the school curriculum, as a result of which pupils will gain a better understanding of the role of industry in the industrial society in which they live; and a greater ability to participate in and shape the development of our industrial society."

"To encourage those with experience of the industrial world to become involved in these curricular changes both by working with teachers to change the curriculum and also being involved with students in the learning process." (Peffers, 1985).

The Administration of SCIP

SCIP subscribes to the shared-management model - the Local Education Authorities being responsible for 50% of the funding locally. SCIP funds the other 50%. The Department of Trade and Industry grants £4,000 per year to the salary of SCIP co-ordinators in each participating LEA. SCIP co-ordinators are usually teachers who have been seconded for three years. They aim to visit four to six schools over a period of time, reporting on the extent to which the curricular changes in favour of industrial relevance. The co-
ordinators are expected to move to other schools nominated by the Local Authority, once change has commenced. The London-based, central team, during the initial phase of the Project, consisted of a Director, a Project Evaluator, four part-time evaluators and administrative and clerical assistance.* The co-ordinators met with the central team approximately twice a term to report and share experiences. In learning how change was best facilitated from common experience they were able to encourage new strategies when returning to the schools. Residential conferences were also held twice yearly, to support the action research model.

Strategies

SCIP adopts a cross-curriculum approach, encompassing teachers of all disciplines. The aim is to help schools develop their own ideas, and thus SCIP provides no ready made package or solution, only encouragement. In going to a small number of schools and then moving out ("a well documented strategy, offering the best hope of achieving a development with any sense of permanence" (Peffers, 1985)), SCIP is concerned with local solutions to local problems, involving local businessmen, teachers and trade unionists in the process of curriculum development (the 'catalytic consultation model' (Blake and Mouton, 1976)).

*The central team of 5, in 1987, had different briefs and funders, i.e. a decentralised division of labour.
Problems - Success or Failure?

Few of the national projects in the school-industry area involve trade unionists and SCIP did not find the involvement easy. This is confirmed by Jamieson and Lightfoot (1981) who say:

"The Industry Project found it more difficult to involve trade unionists in the schools than it did employers because:

- trade unionists were sceptical of the worth of school-industry projects,
- trade unionists found difficulties in obtaining release from places of employment,
- teachers believe that the trade unionists' contribution is likely to be less useful than the employers."

Winter (1980), on the other hand, says that trade union involvement is responsible for the failure of SCIP. He does not give, however, any evidence of SCIP having failed. James (1985) remarks upon SCIP being viewed "somewhat distantly by the present Government", when he says, "SCIP seems early on to have acquired (probably unfairly) a reputation for being too union orientated."

Perhaps it is fair to state that SCIP encountered problems commensurate with change in a bureaucratic, traditional education system.

Success at local level depended on how the schools organised SCIP and how teaching about industry found its way onto the timetable. (Jamieson and Lightfoot, 1981). The most prevalent method was by merging 'industry' into general courses, such as General or Social Studies, as this did not interfere with
examination courses. At least by this method all pupils were included in the teaching. By making 'industry' an option for examination purposes, a large section of pupils did not receive such teaching. SCIP stresses the cross-curricular approach, but this proved the most difficult strategy to put over, because of constraints in schools. Jamieson (1980) notes that "it was not an outstanding success as a strategy, for schools do not possess any mechanism to consider and implement across the curricular changes". Indeed, "the management structure of a school needs re-organisation before many changes can occur". (Jamieson and Lightfoot, 1981).

Winter (1980) says in his research document, that SCIP found the single subject approach better, although it did not set out to do so. The Schools' Council's previous experience, documented in the Impact and Take-Up Project (Steadman et al, 1980) showed that "those projects which are cross curriculum, which bridge traditional subject boundaries, have not in general achieved such high levels of familiarity or uses as single subjects."

Jamieson (1982) also links the difficulties associated with this strategy with the experiential style of learning - a "teaching style which challenges accepted ways of working".

Winter (1980) criticises the Project as lacking a concrete pattern of curricular objectives and that this vagueness did little to convince schools that a study of industry was worthwhile. The strength of the Industry Project, however, lies in its action research approach, where teachers are urged to develop and re-evaluate their own objectives in the light of local circumstances.

When SCIP was developed in Wales, the initial problems inherent
in the SCIP approach were noted in the press: (Hibbs, 1982).

"Mr. David Giles said yesterday that businesses and unions in the area were keen to get involved with this sort of work, but the main barriers were in the schools themselves.

The SCIP approach is more radical than traditional schools-industry liaison which involves one-off visits and speaker meetings. The biggest hurdle of all is to encourage teachers to use people other than themselves because they think they know better."

"so far, only individuals in a small number of schools have responded."

Jamieson and Lightfoot (1981) indicate other problems associated with SCIP in schools. For instance, local employers do not regard teaching about work as particularly important, they are concerned primarily with teaching for work. This is the local viewpoint, whereas teachers hold the national viewpoint - that teaching about work is a good basic for future choice. They highlight too, that employers are suspicious of educational innovation and may incline to the view that ill-considered changes are the main source of the problems that they are encountering in the work place. On the other hand, employers are aware that changes in the curriculum are necessary. Such tensions do not help when establishing a project such as SCIP.

The Dissemination and Development Phase

After 1973, when a Working Party reported back to the Schools' Council on the need for Dissemination in In-service-training, the
Schools' Council took the view that separate funding for dissemination and after care of projects should become the norm. The Impact and Take-Up Project (Steadman et al, 1980) stated that:

"there is evidence that projects which did not have specific resources for dissemination available after the date of publication are not so widely known of or used by teachers, as those which did have."

The Survey in 1978, including seven and a half thousand teacher responses to questionnaires, indicated that it takes ten years to establish a project. It is difficult also, to assess SCIP as a whole, as its emphasis centres on local activity. Only through a series of case studies, can SCIP be evaluated acceptably.

However, the action research strategy demands that SCIP co-ordinators must have learnt from past involvement, and that in the dissemination phase they should be building upon aspects of the evolution of the project. Of what they claim to have learnt, a few salient points are noted:—

. It is possible for industry and trade unions to make a formative contribution to the curriculum of the school, but the orchestration and management of a task orientated dialogue between schools and industry makes for real change.

. Having someone in the LEA who can play the role of change agent is an indispensable part of effective curriculum change in the area of schools-industry.

. SCIP has become more successful because of the DTI policy to have SILO, EILOs, DISCOs in all authorities. Many are former SCIP co-ordinators.

. Schools must be helped to identify their own needs and the
solutions to those needs.

- The principle of local solutions to local problems is a very important way of institutionalising curriculum innovation.
- Experience-based learning is an effective means of helping students to gain an understanding of what industry is about, and an important way of exploring student's values, attitudes and perceptions towards industry.

Industry Year and the Future

SCIP saw its priority as being a national one for Industry Year - to provide a national network of co-ordinators supported by a central team and organised to ensure the development of mutual support, the evaluation of practice and its dissemination. It saw a focus for the support, co-ordination and orchestration of non-vocational initiatives within LEAs as essential. In the foreseeable future, Peffers (1985) says that LEAs may seek to systematise or rationalise education-industry liaison, given the eventuality that pump priming finances will be withdrawn. Co-ordination is predicted between vocational, pre-vocational and non-vocational relationships with industry, at local level.

CURRICULUM CHANGE

Industry Year 1986, is quoted as being "a device to speed up the pace of change". (Royal Society of Arts, 12/7/84). The schools-industry field is at an exciting stage in its development. Whilst focus was upon the field in 1986, the Association of Industry-Education Co-operation was launched and Jamieson (1985) hinted at the formation of a society for SILOs.
Such are the movements OUTSIDE schools, but how is change brought about in the classroom? How is the impetus, which is strong at committee level, or agency level, maintained, until it reaches the classroom? How is change effected when employers are suspicious of curriculum innovation and teachers are unwilling to add to the demands of a school week?

Various strategies, or models exist, which claim to effect change.

**Strategies for Curriculum Change**

When a new idea's use or rejection has an effect, change is said to occur (Rogers and Shoemaker, in Macdonald and Walker, 1976). Whilst investigating the effect of school-industry agencies on the high school curriculum, it seems necessary to consider the theories behind strategies for curriculum change. However, the author agrees with Jenkins (1973) that "models are simplifying devices to aid interpretation". Predictably, since all theories and associated models are crudely prescriptive, they are all found wanting. In investigating the method by which school-industry agencies are presented as innovations, several characteristics similar to those explained by theorists, emerge. Such similarities and differences are referred to throughout this section.

It is only recently that educationalists have begun to see the need for planned innovation. (Kelly, 1982). It is also true that many teachers are satisfied with the status quo. They adopt the most primitive strategy towards innovation, simply to do nothing, and according to Havelock (1972) all too often say, "these things come and go in cycles", or, "if we ignore them, they go away".
Diffusion, the ad hoc, opportunistic spreading of an innovation, is often confused with the term dissemination, which indicates "planned transmission lines from innovation to receiver" (Kelly, 1982); "a planned phase of activity" (Whitehead, 1980). Current thinking accepts that diffusion of an innovation may occur at any stage, usually after "the initial lines of communication have been opened up". (Rogers and Shoemaker, 1971). Early American theorists such as Schon and Havelock use the term interchangeably. Neither Schon nor Havelock, who give foundation to the theories of curriculum change today, are educationalists. Kelly (1982) warns of the danger of outsiders imposing ideas upon education. Nevertheless, their models are worthy of constructive criticism and stand in their own right until they become superceded by better ones.


Fig. 4.6 The Centre Periphery Model or the Top/Down Model

Here, Schon suggests that there is central control over an innovation's diffusion*, which transmits information to the periphery. In order for diffusion to occur in the context of schools Kelly (1982) says that it depends on the ability of those at

*Also implies dissemination (see top of this page).
the centre to manage. "Those at the centre" are defined by Whitehead (1980) as being, in terms of power and permanence, "the Local Education Authority". The length of spokes in the wheel, and the number of spokes, that is, distance from centre to periphery and the number of people involved, also affect the take-up of an innovation. However good the central managerial ability, without central resources the innovation will fail. The effectiveness of this approach depends upon the ways information moves from the periphery back to the centre. Kelly (1982) remarks on its essential weakness:

"there is a wide gap between the ideas of a project held by its central planners and the realities of its implementation in the classroom."

With this simplest of models, it becomes obvious that communication is central to the implementation of an innovation. Schon himself remarked on the gap between the centre and the periphery, in his 1970 Reith lectures, when he said:-

"In the centre-periphery (or top/down) model, what looks from a researcher's point of view from the centre, schools at the periphery getting out of control, looks from the periphery like creativity."

To an extent, the centre-periphery model reflects most school-industry liaison activities, most adopting variations upon this theme. YE, UI and SCIP involve a central body of control - their administrative centres, and schools at the periphery. Nevertheless, such a model is so simplistic as to give rise to widespread variation. By involving more localised administration, the centre-periphery model evolves into
Fig. 4.7 The Proliferation of Centres Model

This introduces secondary centres and establishes more of an hierarchical system. It is the idea of a central team overseeing local groups. Stenhouse (1975) holds this model to be dominant in curriculum development in England and Wales. Several school-industry activities function in this mode. For example, Area Organisers for YE, Regional Organisers for UI and local liaison committees for SCIP would be secondary centres applying this model. They are 'peripheral centres' which relate back to a central body. The three agencies in this work therefore comply to this model. It multiplies and extends the diffusion system, yet depends very much on the ability of the primary centre to manage and delegate responsibility. Again, according to Whitehead (1980), it may fail owing to lack of resources. It can be shown to fail through lack of human resources in the author's experience, whilst conducting this work (lack of UI organiser, chapter 7).

The Shifting Centres Model

The shifting centres model has no central control and no
centrally established message. It is used by Schon to describe the spread of ideas, such as Black Power, or apartheid, but Kelly (1982) says that it offers no specific use within the field of education. It may, however, serve to describe the schools' industry field, for the 'Great Debate' has been taken up for a variety of reasons, in different places, with varied emphases, over a number of years. A general spread of ideas has occurred, although centrality and coherence is lacking.

Havelock's Models

In 1969, Havelock put forward his Research, Development and Diffusion Model, upon which most Nuffield and early Schools' Council Projects were based. This, Kelly (ibid) describes as "the model to be adopted when large scale curriculum change is the aim".

Fig.4.8 Havelock's R.D. and D. Model

This is based upon a target system. It is an industrial model, adapted from the centre-periphery model of Schon.

The planned mass dissemination activities usually involve pilot projects, before a project is fully in operation.

YE, UI and SCIP all used pilot projects to 'test the prototype'. When the product reaches the user, it is almost assumed to be "user-proof" (Havelock, 1972). However, the model sometimes fails since the "life-giving force originates outside the user system". (Holt, 1980).
When school-industry agencies develop such a package, they rely upon the permission of Local Education Authorities (as well as in some cases, funding and staffing), to enter schools. Introducing the centre-periphery model at the user stage implies that reliance on the central authority (project team, or local education authority) leaves room for little independent self-criticism in the innovatory approach". (Macdonald and Rudduck, 1971).

Since SCIP had a pilot project, or trial run, it holds tenuously to this model. In its case, the action-research model adopted means that a continual re-evaluation of the product occurs. This overcomes the obstacles mentioned above by Havelock, Holt, and Macdonald and Rudduck.

Havelock's Social Interaction Model

This model, according to Kelly (1982), places stress on the social interactions between members of the adopting group, since the key to the adoption of the innovation is the social climate of the receiving body. The success and failure of this Periphery-Periphery model relies upon channels of communication. Any problems with communication would affect the innovation. Holt (1980) says that Nuffield Junior Science and Junior Mathematics were established by this method, which coincided with the growth of teachers' centres. Concerning school-industry agencies, some central control must occur if the agency itself is to maintain an identity in the curriculum development process.

Havelock's Problem-Solving Model

This involves a new line of thought - the Periphery-Centre
model, where the consumer identifies the problem, and the process of innovation is initiated by him. It relies upon mutual co-operation between the consumer and the change agent, who should be non-directive. This model has become the template for school-based curriculum development, with the change agents being within the school. Skilbeck (1976) argues the case for school-based curriculum development, since he notes a resistance to descending models. He claims that "the teacher should be the agent of cultural change, knowing more of individual pupils' needs".

SCIP is a good example of this model, which focuses on procedures of innovation, rather than on innovation itself. The SCIP co-ordinator encourages schools to develop their own links with industry, in whichever way is suitable for the school, individual pupils and the local environment. His role is one of 'co-operative catalyst'.

Channels of communication in this case, are even more important, for Macdonald and Rudduck (1971) say that "dilution and distortion can be traced to mistaken assumptions". They advocate consideration given to the communication language of a development project.

Kelly (1982) expresses some reservations about the Problem-Solving Model:

"It is necessary to go beyond the Periphery-Centre model of change by identifying the problem of the consumer when he appears to be unable to recognise it himself."

What Kelly appears to be saying is that consumers are not always in a position to take decisions about their own innovations
in the classroom, and that they often need a push in the right direction. This is substantiated by Macdonald and Rudduck (1971) who advocate teacher development. Their model of dissemination involves in-service training, that is, regular training programmes. Whitehead (1980) says that they conclude that in-service training has not been successful with development projects to date, in the sense that there is no evidence that it has led to permanent change.

Professional Centres

The idea of a professional centre was first introduced in the James Report (Hoyle, 1976). Hoyle suggests that, although intermediaries currently exist between schools and agents of curriculum change, a professional centre strategy would reinforce existing agencies, by giving linkage, support, consultancy, and in-service training. The emphasis within curriculum development in the 1980s appears to be on the need for changing the way a teacher performs his role, and centres for such consideration may well provide the answer.

Communication of Innovations

The models described previously, succeed or fail depending on levels of communication. Rogers's and Shoemaker's (1971) theme is that communication is essential for social change, and that interpersonal channels are important in changing perceptions towards innovations. Since the school may be viewed as a social system, their ideas may be applied to curriculum development.
This model is linear, involving an innovation having a message which can be channelled to a receiver, who then responds.

<table>
<thead>
<tr>
<th>Source</th>
<th>Message</th>
<th>Channels</th>
<th>Receiver</th>
<th>Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>(S)</td>
<td>(M)</td>
<td>(C)</td>
<td>(R)</td>
<td>(E)</td>
</tr>
</tbody>
</table>

(Changes in existing patterns of activity)

The 'SMCRE' model owes its success to the change agent (a conveyor of the message) and receiver being alike - "the homophily principle". Rogers and Shoemaker (ibid) say that "one of the most distinctive problems in the communication and diffusion of innovations is that the source is usually quite heterophilous to the receiver". This is true of many school-industry link schemes.

The use of outsiders' expertise and knowledge in education has very positive implications. However, with the functioning of YE and UI, teacher involvement, through choice on the part of the teacher, can be minimal. By removing organisational responsibilities from the teachers, UI may be removing the opportunity for the educationalist to be an agent of change within the school. SCIP offers a basis for communication and in-depth discussion between the source and the receiver.

The effects of an innovation are unpredictable, even by the change agents involved, for one of the aspects of an innovation's consequences, is the subjective perception of the innovation by the clients. It is towards investigation of this problem that the thesis is addressed.
School Organisation – The Host Culture

"Planned change, of a meaningful and lasting kind, is most likely to occur if it is introduced under the control of the host culture." (Hewton, 1982). Each school, as an organisation is unique, and thus, a study of the effects of school-industry agencies in schools, involves a study of the 'culture' of the schools taking part.

Handy (1976) in Hewton (1982), suggests various cultures, which may, the author believes, apply, in part, to the schools in the research.

Role Culture

In the role culture, role or job description is seen as most important. Specialised units are co-ordinated by Senior Management, who answer to a superior. On the surface, this would appear to be a culture perpetuated by this country's education system.

Task Culture
Influence shifts within the task culture, depending on the task. It has the appearance of a net, with various links related to power which is justified by expertise, not authority. One who has power for one task, may have diminished responsibility for another. Here people are more likely to work in teams. The culture utilises the unifying power of a group. It may pervade certain activities in schools, such as team-teaching, but cannot be used to describe the overall culture of a school. The model is a closer description of University departments.

**Person Culture**

Where a group of individuals come together to form their own goals and ideals, they are part of Handy's person culture. (Hewton, *ibid*). Structure exists only to serve those within the culture. They are autonomous within the group, and influence is shared based on expertise.

To a certain extent, autonomy may exist where several members of staff become involved with schools-industry work. The departmental barriers which exist in some schools may well mean that a few members of staff form a person culture, whilst others regard the culture from afar with attitudes ranging from distant admiration to high suspicion.
Power Culture

Diametrically opposed to the person culture, the power culture puts emphasis on results, and is competitive. The power group makes decisions based on power struggles, which results usually in low morale and high turnover. Perhaps this culture describes industry more than schools, although there are elements of the organisation of a school within it. As Hewton (ibid) reiterates, there is usually a tendency towards one style or another - no culture specifically relates to one model alone.

The School as an Organisation

In Getzels and Guba's model of the school as an organisation (Hoyle and McCormick, 1976) (Fig.4.10), the total involvement of participants' needs, interests, expectations, attitudes, are given consideration, along with their roles, thus showing that each organisation is unique.
Two dimensions are noted:

**The Nomothetic Dimension**

A relatively stable pattern of roles, people in a school conform to the expectations attached to them. Singly, such a dimension takes no account of differences between individuals. It is balanced (or often in conflict with):

**The Idiographic Dimension**

This personal dimension acts as the balance, the idiosyncratic aspect of the organisation accounted for by differences between people.

Hence, there is a balance between the institution and the individual, the role and the personality, and the expectations of a person's behaviour compared with needs.

In practice, the question must be asked: how is change brought about in such an organisation? Hoyle (ibid) says that:

"successful change in the idiographic dimension occurs when change stems from inside the organisation and originates with the individual (see Havelock's
Problem-Solving model).

Such an individual then has the responsibility of changing members of the organisation as a whole, so that an innovation becomes 'institutionalised'.

Conclusion

One of the problems encountered whilst attempting to link school-industry agencies and the secondary school curriculum lies in the lack of strategies adopted by agencies, or schools, to concentrate on permanent change. The theories themselves are at best, "primitive" (Macdonald and Walker, 1976). Consequently, Macdonald and Walker (ibid) indicate that unplanned educational change is the norm. Few agencies or schools consider the social structure of the organisation, or communication channels in a structured way. How much effect, therefore, do school-industry agencies have?
CHAPTER FIVE
NATIONAL AGENCIES IN LOCAL EDUCATION AUTHORITIES AND SCHOOLS

INTRODUCTION

The information contained in this chapter serves as a picture of agencies in LEAs during the academic year 1983-4. It was gained from the LEAs' response to the letter in Appendix 1. More specifically, the chapter contains a background to school-industry work in County X and reports the author's research in all of the County's secondary schools.

SECTION ONE - CONTACT WITH LEAs

Initial contact with LEAs was established by writing to the Director of Education, Chief Education Officer or the Senior Secondary Adviser in each Authority in England and Wales (chapter 2). The questions asked (Appendix 1) were designed to ascertain:

- County policy regarding school links with the world of work.
- School-work schemes underway in the County.

Given the broad definition of industry (chapter 1), it was decided to use the term 'school-work area' to describe the scope of the research. This allowed a broad basis on which to decide the specific nature of the research at a later date.

Responses

The 78% response rate from eighty-one of one hundred and four LEAs in England and Wales comprised sixty-six positive replies and fifteen negative. Of the fifteen respondents who replied
negatively, saying they were unable to provide details, the reasons given showed similarity. Most blamed "economic restraints and pressures within the service". A lack of documentation meant that some could not reply sensibly:

"This area has yet to be co-ordinated with an overall Authority policy."

Perhaps interest in the school-work field was reflected by one response:

"I am not able to respond to the plethora of such requests."

The author suggests that similar reasons were responsible for the lack of replies from 22% of LEAs in England and Wales.

Respondents

Positive responses came from various sectors of the Education Authorities. The recipients of the initial letter to LEAs (Appendix 1), in many cases, gave the letter to those they thought responsible for the school-work area (Appendix 45).

**Fig.5.1 Positive Respondents in LEAs**

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directors of Education</td>
<td>7</td>
</tr>
<tr>
<td>Chief Education Officers</td>
<td>10</td>
</tr>
<tr>
<td>Senior Secondary Advisers</td>
<td>6</td>
</tr>
<tr>
<td>Schools Industry Liaison Officers</td>
<td>19</td>
</tr>
<tr>
<td>SCIP Co-ordinators</td>
<td>8</td>
</tr>
<tr>
<td>Careers Advisers</td>
<td>8</td>
</tr>
<tr>
<td>Science Advisers</td>
<td>2</td>
</tr>
<tr>
<td>Adviser for Youth Training</td>
<td>1</td>
</tr>
<tr>
<td>Director of a Forum for Industry, Commerce and Education</td>
<td>1</td>
</tr>
<tr>
<td>Director of a Top-Shop Centre</td>
<td>1</td>
</tr>
<tr>
<td>Director of a Centre for Industrial and Industrial Liaison</td>
<td>1</td>
</tr>
<tr>
<td>Further Education and Community Adviser</td>
<td>1</td>
</tr>
<tr>
<td>Adviser in charge of Curriculum Development</td>
<td>1</td>
</tr>
</tbody>
</table>

**TOTAL** 66
The job titles of persons responsible for the school-work field in the LEAs reflect the diversity of provision at local level, and how the LEAs interpret the role of the world of work in education. The various Schools Industry Liaison Officers (SILOs, *DISCOs, EILOs, SIDOs) were given the task of responding in nineteen cases, a general mark of the emphasis placed upon schools-industry liaison by local authorities. In several cases, a name and address for follow-up work was sent to the author before positive feedback was received.

**Documentation Outlining County Policy in the School-Work Area**

Sixteen respondents mentioned a County policy in their replies. Others saw fit to send schemes of work to intimate the "policy" of the Authority. Some LEAs had "no County initiatives as such", and sent details of the work of individual schools, since "links are developed on an individual basis by schools". It was obvious from the replies that a general cause of action, or policy, of an LEA can be interpreted and expressed in numerous ways. It could be the setting up of a Working Party, to report back and produce documentation, or "a policy of development and encouragement without specific documentation". To many, policy in the school-work area was defined as "implicit, rather than explicit", an ethos, or understanding, rather than a documented course of action. One LEA held its policy to be "the DES framework". A few respondents stated their intention to prepare a policy document in the near future. This was true of County X (page 150).

*DISCOs - District Industry Schools Co-ordinating Officers; EILOs - Education Industry Liaison Officers; SIDOs - Schools Industry Development Officers.

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Reports Available on Schemes Underway in the County

The nature of responses to this request varied greatly. Letters were sent, simply stating that a scheme or schemes were used in the County, or details were included of various organisations, often the publications issued by national agencies. The author received documentation on aspects of the work of local committees, working parties, forums and centres, all aimed at increasing local liaison activity between schools and the world of work. A number of reports were sent from SILOs, and these were especially relevant to the work of national agencies if the SILO was funded by, for instance, UBI or SCIP. Their reports included local school initiatives, examples of liaison, loosely termed "good practice", and details of individual secondments from school to industry.

Fourteen LEAs used the CBI "Introduction to Industry Scheme" for secondment of teachers, or their own derivation of it. Two LEAs mentioned the CBI scheme "Introduction to Education for Industrialists", but sent no reports. Twenty-seven Authorities had work experience schemes and these ranged from "all schools" being involved, to "10% of the pupils go on work experience". School-based work experience was linked with visits, to and from industrialists. Individual schools had 'twinned' with a local concern, and there was evidence in their reports of discussion between teachers and employers as to the content of the curriculum, e.g.

"Senior managers of the firm attended meetings of the School's Board of Studies in 1982-3, to contribute to curriculum discussion." (Wood, 1982-3).

Careers service involvement, interviews and conventions, were cited
by thirteen Authority representatives.

The request for information in the school-work field prompted replies about school-industry liaison. However, the emphasis was on liaison rather than curriculum development. None of the respondents gave examples of strategies within schools to effect change, or an indication that the LEA was encouraging strategies, rather than simple ad hoc liaison. Whilst it is more than likely that such emphasis exists in several cases, it is noticeably absent in the responses from LEAs. A direct question concerning curriculum development in schools may have prompted a more positive reply.

National Agency Involvement at County Level

Fig. 5.2 The Percentage of Respondents who cited specific National Agencies (Recorded as a percentage of the total positive response [66 replies])

<table>
<thead>
<tr>
<th>AGENCY</th>
<th>YE</th>
<th>UI</th>
<th>SCIP</th>
<th>UBI</th>
<th>SATRO</th>
<th>CRAC</th>
<th>PT</th>
<th>IND.SOC.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage</td>
<td>27%</td>
<td>12%</td>
<td>33%</td>
<td>27%</td>
<td>26%</td>
<td>9%</td>
<td>20%</td>
<td>12%</td>
</tr>
</tbody>
</table>

KEY: YE Young Enterprise
     UI Understanding Industry
     SCIP Schools’ Curriculum Industry Project
     UBI Understanding British Industry
     SATRO Science and Technology Regional Organisations
     CRAC Careers Research and Advisory Centre
     PT* Project Trident
     IND.SOC. Education for Industrial Society

Since only 66% of the LEAs responded favourably, a comparison may not be made with national figures supplied by agencies.

*PT is not an accepted abbreviation of Project Trident, but is used here for consistency in the Figure.
Obviously, from national figures (pages 87 and 95), some LEAs who did not respond to the letter sent (Appendix 1) were involved with national agencies in 1983-4. SCIP, for instance, was linked with fifty LEAs in 1983-4. From the results shown overleaf, SCIP appears to be the most popular of the national agencies. The nature of the scheme, allowing schools to develop their own curriculum, may be responsible for its popularity. Certainly, the fact that there are, at the time of writing, sixty LEAs involved with SCIP, shows the esteem with which LEAs regard the Project. In 1983-4, YE claimed to have seven hundred and fifty companies in Great Britain (see Fig.4.3) and UI's figures show one hundred and seventy-two courses taking place that year (see Fig.4.5). The figures shown in Fig.5.2 are therefore only relating to the sample and not to the national picture drawn by the agencies. The low percentage of replies concerning UI is surprising, since the scheme claims to have had the biggest take-up of any school-industry scheme in its first six years (page 94).

There seemed to be some confusion in the replies between UI and UBI. One respondent said that there were 'Understanding Industry' courses for staff and pupils. This could mean UI involvement, or the use of Project Falcon - UI's course for sixth formers also used with staff. Otherwise, it could mean any course organised by a national agency which the respondent is naming generally, or a local initiative. Overall there seemed to be some misunderstanding over the terminology used in school-industry work. Several respondents referred to industrial secondment of teachers, but did not quote specifically the agency which had been used. Perhaps several agencies' ideas were used in an LEA's own scheme. This is not clear
from the results. Resource centres were spoken of, which may well have been UBI satellite centres, but these were not named as such. National conferences, or local conferences were touched upon, but specific agency involvement was indicated by a few respondents only. Such conferences could have been organised by DES, CRAC, SCIP, or UBI or simply LEA INSET courses.

Details of the work of local SATROs were not sent. Respondents sent publications provided by the national agency. However, a number of regional SATRO committees were acknowledged to be in existence.

Respondents replied that CRAC was active in their LEA and 'Insight' courses were mentioned. CRAC organises a number of courses which are not specifically careers orientated, called 'Insight into Management' courses for sixth formers and undergraduates, and also 'Insight' courses for teachers. Business education materials are also produced by CRAC. No respondent however, specified how the LEA was involved with CRAC (other than County X - see page 130).

A high percentage of respondents noted Project Trident as being a national agency involved in the work of LEAs. Work experience is only one aspect of its work, where the administrative aspect is removed from the hands of the teacher. Several authorities acknowledged the value of some of the model, but deemed the scheme too expensive to use. Project Trident may also be used for outdoor pursuits courses and personal development training, but these aspects of its work were not referred to.

In 1983-4, Challenge of Industry Courses run by the Education for Industrial Society, were held in a number of schools and were
alluded to by some respondents. These involve groups of sixth form students led by industrialists or trade unionists, brought together to solve case studies of an industrial nature.

The responses which contained evidence of national agencies being involved in school-work activities in the LEA, gave importance to those listed in Fig. 5.2. It is presumed that these agencies were sufficiently prevalent in the work of the LEAs to warrant a reply. Other national agencies may well have been taken up by the LEAs, but did not feature in the responses of the individuals concerned. This highlights one problem of curriculum development, both in schools and in LEAs - where one person is unable to give the whole picture. It is difficult to evaluate if one hand does not know what another is doing. However, those agencies worthy of note by respondents became the focal point for future research. The results of this section do not presume to show the fullest picture, and by the nature of the responses cannot hope to do so - they merely point to areas to investigate at the next stage of the research - the consequential aspect of the overall case study (chapter 2).

COUNTY X

County X, chosen for reasons previously recounted (chapter 2), claims to be a pioneer in the field of school-industry links. The County Handbook claims:-

"the County scheme has won national recognition and has earned financial support from the Department of Industry and from local industry." (County X handbook, 1983).

The funding referred to was for a school-industry co-ordinator
for eighteen months and for grants towards UI development and a resource centre.

The County measures fifty miles from north to south and thirty miles across. It is bordered by seven other counties. Although most of the land is used for agriculture, only 2% of the 520,000 (approx.) population are directly employed in farming. (Greystone, 1980). Since 1952, the County's main industrial town has been designated an "expanding town", becoming a regional centre for industry. Trading estates have been developed in most towns in the County.

The Development of School-Industry Work in the County

In April 1975, a school conference initiated by a Headteacher, brought industrialists, trade unionists and educationalists together to discuss education and industry. As a result, small groups of teachers and industrialists worked together on materials and multi-media packs for use in schools. At the same time, a schools-industry consultative group was formed, with the aim to influence the curriculum being taught in schools and the attitude of those who teach it. (Greystone, 1980). By 1977/8, it was a full advisory committee, with twenty-eight representatives from schools, the LEA, trade unions and industry. SCIP and UI were also represented. In 1978, a co-ordinator for school-industry work, who was also a SCIP co-ordinator, was appointed. Later the co-ordinator became a full-time advisory teacher for school-industry work. In the early stages, schools-industry work back in 1975 was guided by two senior careers officers. The Careers Service is still linked with school-industry work, since work experience features as part of the
responsibility of the schools-industry advisory teacher.

Much of the information gained about County X was taken from interviews with the advisory teacher for schools-industry work (Annexes 22-24 and Appendix 3), and documents obtained from him. Part of his role is defined as "co-ordinating and creating an awareness of all national projects". It is policy to work through Headteachers in County X because of the need to convince people in a position to influence change. Hence, a number of INSET courses for Headteachers have been held in the past. The CBI, who part-funded schools-industry work in County X for eighteen months, are greatly involved in its work. The County's secondment of teachers scheme is based on the CBI scheme.

County X's Involvement with National Agencies up to 1984

(County X, 1984)

Young Enterprise (YE)

The County is divided into 3 districts (see chapter 4). A Presentation Evening is held annually, when the best company is judged to go on to the National Competition. The advisory teacher has a major link with the regional director of YE. In 1981-2 there were six companies in the County, in 1982-3, ten, and in 1983-4, eleven.
County X was one of the initial development authorities for UI. It had four teachers and industrialists on the National Consultative Committee and close links with the local representative. It has a link with Project Falcon, and in the past has taken part in a three-county INSET course managed by UI, when teachers worked in a simulated market environment.

*The 'Do It Yourself' Scheme was encouraged from 1981/2.
The Schools' Curriculum Industry Project (SCIP)

County X has had great involvement with this Project since 1978, and was then one of the five pilot LEAs. Until 1980, SCIP funded the schools-industry co-ordinator and secretarial time. By 1983-4 ten schools had become involved.

Understanding British Industry (UBI)

The schools-industry adviser works with a number of regional liaison officers. In 1983-4, a County headteacher was a member of the National Committee. The resources centre in the County is also a satellite centre for UBI. UBI runs various simulations, helps with INSET and with teacher secondments in the County.

Science and Technology Regional Organisations (SATRO)

There is much co-operation and collaboration between schools-industry work and the SATROs, with a co-ordinating adviser, and two further education lecturers who give twenty percent of their time in an academic year, to the SATROs. These report to the LEA through the schools-industry committee. The local university is also a SATRO base.

Careers Research Advisory Centre (CRAC)

Several national conferences have been staged on behalf of CRAC, and individuals from the County have contributed to other national conferences. Several county representatives including industrialists have attended 'Insight' courses. CRAC was responsible for a one-day course for twenty teachers in December 1981 and a three-day course as follow-up for twenty-four teachers.
In 1983-4, a sixth form conference was planned.

**Project Trident**

The County has had little direct contact with Project Trident except for initial approach work. Schemes for school-based work experience were being considered, where part of the Trident model could be used.

**Education for Industrial Society (Ind.Soc.)**

A number of schools in the County organise Challenge of Industry courses. Two or three schools contact Ind.Soc. directly, at a cost of £250 for one hundred and seventy-six pupils over a two day period. Three such courses had been held up to 1984.

**Other Activities**

The schools-industry adviser has been responsible for prompting several schools in the County to hold Industry Days which the schools organise themselves - inviting industrialists into schools, often to conduct simulations. Mini-partnership schemes to link schools and industry have been planned. These are the activities in the County considered to be particularly relevant to the topic. In the words of the advisory teacher responsible: "there is an upswell of activity, locally, nationally and internally", (i.e. in the LEA).

**The County Curriculum Policy**

During 1983-4, the policy was in its final development phase, after Headteachers in the Autumn Term 1981, had been asked to submit
reports outlining the curricular aims of their schools following discussion with the Governors. They were to state the means by which the aims were put into practice and how they differed from the DES outline in 'The School Curriculum' 1981.

The County Curriculum Policy (County X, 1984), was issued in November 1984, after details had been received from LEAs, Headteachers and teachers in County X. Therefore it forms part of the next section to maintain chronological order.
SECTION 2 - THE COUNTY'S SCHOOLS

This section incorporates the interviews held with thirty-eight Headteachers or their representatives in County X (School numbers 1-38), the findings from questionnaires given to Heads of Department in these schools, and the County Curriculum Policy, available to schools in the Autumn Term 1984. It serves again, to provide a background from which to view the effects of school-industry agencies, but also highlights areas for further study, i.e. the consequential and logical aspects (see chapter 2).

THE SEMI-STRUCTURED INTERVIEWS WITH HEADTEACHERS (Jan-April 1984)

After adopting the methodology for holding interviews in chapter two, the data collected was analysed by making full transcriptions of the interviews immediately after the event. (Annexes 1-21. Examples of Transcriptions, Appendices 6, 7.). From these, details obtained were re-written under numbered question headings and salient points were extracted.

Past Links

Headteachers or their representatives talked liberally of work experience, careers education, in-service training, industry visits to and from schools, community work and links with further education colleges. The diversity of provision for school-work activities at national level (section 1 of this chapter) is reflected in the comments made by the Headteachers of one County's schools.

Individual schools had been involved to varying extents over a period of time with school-industry links, often supported by the County Industry Education Liaison group:
"Local links are strong: we are closely linked with the County scheme."

In some of the schools, past links were seen to be "limited", "informal", "irregular", "unfruitful" and "haphazard", although one Headteacher noted that they had increased in the last few years. Several problems with school-work links were quoted as the reason for failure in the past:

"timetabling problems effect work experience."
"there is competition from other schools in the area."
"some links declined owing to personnel changing."
"we couldn't get industry back into schools."

The threat of re-organisation and removal of sixth forms in two areas of the County were held to be aspects of County organisation which hindered the development of the curriculum. In one instance, when curriculum development was encouraged to the extent of forming a curriculum body, it failed "since very few staff are trained to evaluate the school curriculum".

Three agencies were mentioned frequently as having a past and/or continuing relationship with individual schools. These were YE, UI and SCIP, and thus they were considered, at this stage, to be the most likely agencies to feature in the next level of investigation (the consequential aspect of the research process, (chapter 2)).

Past Work with Young Enterprise (YE)

Fifteen respondents said that they had been involved with YE. In the case of six respondents, reasons were given for discontinuing
the scheme in the school:

- "there were no committed staff members to run it."
- "the number of pupils interested was too low to justify setting up a company."
- "the experts from industry couldn't cope with it."
- "a representative had visited the school, but did not return after promising to do so."

Past Work with Understanding Industry (UI)

Eighteen respondents mentioned UI courses which had been held in their schools. From the document 0464U* (UI, 1985), eighteen schools had been involved. Several of the schools had decided in recent years to use a "Do-It-Yourself" approach to UI, incorporating the course into General Studies, without the involvement of the Regional Organiser (Fig.5.3).

Past Work with the Schools' Curriculum Industry Project (SCIP)

The project evaluation of SCIP in County X (Greystone, 1980), shows five schools involved since 1978 (Schools 15, 23, 24, 28, 29). The comments made by Headteachers (B) in describing past links and SCIP, are particularly interesting compared with the information given by the Project Evaluation (A) in County X, and serve to show change which has occurred since (Fig.5.4).

*An Understanding Industry reference number.
Fig. 5.4 Past and Present Involvement in SCIP in Five of County X's Schools

<table>
<thead>
<tr>
<th>SCHOOL NUMBER</th>
<th>INVOLVEMENT WITH SCIP 1978-80</th>
<th>EVALUATOR'S COMMENTS (GREYSTONE, 1980)</th>
<th>INVOLVEMENT WITH SCIP - SOME COMMENTS ON THE PAST, 1984</th>
</tr>
</thead>
</table>
| 15            | SCIP was involved with an optional AEb O-Level course involving one teacher and seven 4th year and ten 5th year pupils. | "We now have many links, with great involvement from industry. The initial ideas of our core curriculum were fuelled by SCIP."
| 23            | Reflects the advantages and problems of grafting a new project onto an existing structure. (Living in Society course). There was a lowering of morale due to cutbacks; innovation had begun beforehand in the school and there was danger of "innovation exhaustion". (Jamieson and Lightfoot, 1982). | "We have many links; we are a very active school; our policy contains fourteen aims related to school-industry work."
| 24            | SCIP worked with a "Careers Course taught with 4th year pupils. Two teachers and a local firm were involved." | "It had no impact. We were involved with two companies. I didn't follow it up. It was in the Careers Department. A lot of staff would say they could not accommodate it."
| 28            | Guidelines, a course for 4th and 5th years, involved eleven teachers. | "Guidelines was linked to SCIP. The industrialist was made redundant so it fell through. Now we find the course overlaps with Careers work. Ideally, we should scrap Careers."
| 29            | A Society and the Individual course for 4th and 5th years was taught by teachers from several departments. | "We are not a pilot school. We keep a lively interest, and use SCIP news. One teacher is involved with County Education Industry liaison."
These comments would suggest that SCIP has been the basis of further curriculum development since 1980 (Sc.15): it has served to increase school-industry links although encountering difficulties due to the existing innovativeness of the school (Sc.23): it can remain within a Careers structure and have no further impact on the curriculum (Sc.24), it can overlap with Careers work (Sc.28), and it may be a fringe activity, the responsibility of one individual (Sc.29).

School Policy

1a Headteachers' views of school-work links

Respondents were inclined to comment upon issues they felt particularly strongly about. There were some negative responses:

"Learning should be pure, not applied."
"Industry won't come in."
"We do not provide a work ticket."
"Work experience should be for the less-able."

Other responses indicated a more positive approach:

"Schools should not be in a vacuum."
"Wealth creation is an important aspect of our society."
"I've been working hard to establish links."

Most of the respondents showed favourable views, but were restricted in their actions by constraints upon the school:

"Limiting factors are staff and equipment."
"There are limitations with the environment."
"There's so much work for staff."
"There is no comeback from industry."
1b Headteachers' experience of the world of work

8 Secondments to industry, for an average of two weeks.
2 SCIP Training Session attendances.
6 Visits to industry.
5 Worked in industry before entering teaching.

The schools most active with school-work links in the past had Headteachers who had been seconded to industry.

1c Written policies

Thirty-four of the schools had no written policy and the respondents could not state specific aims. The answers were vague and over a great range, such as:

"policy is too strong a term."
"there is a general philosophy."
"it is more of a gut feeling."
"we have nothing, except in the Careers syllabus."
"there's something, somewhere."

The request from the Education Authority for curriculum aims and objectives prompted one respondent to say:

"it's changing, but it's been ad hoc."

Four of the respondents claimed to have a policy for school-work links. One other pointed to the school prospectus, whilst another presented a document with fourteen aims associated with school-industry work. (Sc.23).

1d Governors' involvement with curriculum development

Responses ranged from 13 stating that Governors did not assist, stressing the political emphasis upon a Governor's role, to those
stating Governors helped when required. On four occasions, the Headteachers said the Governors:

- "are local employers"
- "had formed a working party on the curriculum"
- "held mock interviews"
- "acted as industrial tutors"

**1e Appointment of Governors**

In one school only, did the Head state the necessity to have the Director of Personnel of a local firm involved with the Governing body (Sc.15). Other respondents quoted the 1980 Education Act which stipulates the composition of the Governing Body of a school and takes co-option out of the hands of Headteachers.

**1f Parental involvement with curriculum development**

Parents gave practical help in finding work placement for their children, but there was no example of their practical involvement in curriculum matters.

**Industry**

2a. **Local organisations**

Those involved with the work of the schools ranged from "None, except the Careers Service", to "we have over seventy local concerns involved". Answers to this question raised a problem with the research, since several respondents quoted the County Industry Education Liaison work as being a local, industrial organisation, rather than an Education Authority sub-committee.

A few schools invited in local organisations such as Rotary
Clubs and Chambers of Commerce, to consult over aspects of the curriculum (Question 2b). Examples of links with school careers programmes were given (Question 2d), whilst two schools had seen the need to involve employers in the devising of pupil profiles.

2b The effect of unemployment

Examinations were seen to be of high importance invoking parental pressure over the need to find a job or career. One headteacher related the unemployment situation directly to curriculum development:—

"One of the repercussions is that colleagues are asking questions about the appropriateness and relevance of the methodology, concepts and skills of the curriculum."

The Curriculum

3a Extra-curricular work

The question regarding 'extra-curricular work' was posed to ascertain Headteachers' awareness of the existence of YE in their schools. Eleven respondents said that their school ran a company, but most of the respondents had to be prompted in order for the author to gain the information about YE.
Every school is unique in its attempt to include the world of work in the curriculum. Many schools had courses which had been devised specifically to encompass aspects of work, for example, 'Guidelines', 'Living in Society', 'Activities', 'Forum', 'Introduction to Industry', 'Liberal Studies'. Tutorial programmes were used to give advice in three cases. Of the courses mentioned, fifty per cent were optional, and most were offered to fourth and fifth year pupils and sixth formers. (Questions 3 c,d,e,f).

It was from these comments about school-work courses that a decision was taken to ask Heads of Departments whether they were aware of the work of school-industry agencies, several of which are attempting to be cross-curricular. From these findings, much work seemed to be in the non-examinable curriculum areas, suggesting perhaps a secondary importance placed on the courses by pupils and teachers.
3c Fig.5.6 National organisations involved

<table>
<thead>
<tr>
<th>ORGANISATION</th>
<th>NUMBER OF RESPONSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Young Enterprise</td>
<td>14</td>
</tr>
<tr>
<td>Understanding Industry</td>
<td>10</td>
</tr>
<tr>
<td>(The County Scheme)</td>
<td>8</td>
</tr>
<tr>
<td>Schools' Curriculum Industry Project</td>
<td>6</td>
</tr>
<tr>
<td>CBI Teachers Into Industry Scheme</td>
<td>2</td>
</tr>
<tr>
<td>Careers Research Advisory Centre</td>
<td>2</td>
</tr>
<tr>
<td>British Association of Young Scientists</td>
<td>1</td>
</tr>
<tr>
<td>Project Trident-type scheme</td>
<td>1</td>
</tr>
</tbody>
</table>

A telling comment was made by one respondent:

"All these things land on my desk or in the office and are pushed out to members of staff who use their own schemes. I think all these schemes are cosmetic. I think pupils are worse off now because of the number of schemes available."

Those who commented on national organisations were often heard to say that a scheme had fallen through, or was not successful. UI, according to one respondent, "fizzled out because it was not for all abilities". YE was said to have "floundered" in one school, and staff secondments were not altogether successful. One respondent knew of PT and a member of staff had adapted the scheme for the school. Yet, with all the negative comments, the fact that the organisations still exist in some schools is an indication of their success.
3d Local initiatives

The County Industry Education Liaison work was quoted by eight respondents as an organisation which was involved with the work of the school.

Staff

4a Attitudes to school-work links

It is true to say that in questioning Headteachers about staff attitudes, one only gleans their perceptions of the attitudes which they see to exist. However, the climate of the school is determined by the Headteachers' perceptions of such, and therefore the answers are of value as a background to the research.

Those respondents who commented thought that their staff's attitudes were favourable, but highlighted areas of concern:-

- those staff who think school-work links are the concern of the Careers Department only,
- those who deplore the work involved,
- those who don't understand about school-work links.

4b Staff secondments

Seventeen respondents claimed that members of their staff had been on courses associated with the world of work, or on visits, or been seconded. Several expressed doubt as to the need for staff to go on courses which implied changing the curriculum, since "they have no political clout to effect change". The value of secondments to industry was questioned:

"I'm not sure of the value - he learnt a lot but nothing that could be ploughed back into the
curriculum. It was very disruptive to the school."

4c Former industrialists

Most Heads would not hazard a guess at the number of former industrialists appointed to the staff. A Headteacher who came from industry noted that his attitude to management was helped by his former career, but the majority were wary of a person with an industrial background attempting to enter teaching:

"If you don't succeed in industry, you won't in education."

"We do not use their expertise."

4d Teacher recruitment

When recruiting, fifteen Heads said that they would show no positive discrimination to anyone from industry. "It's perception we want rather than background." Overall, their wariness and suspicions were evident: "it depends on the reason why they are giving up." Only one Headteacher said that an industrial background would create an interest with a view to interviewing the candidate.

The Future

Those interviewed pictured an uncertain future for curriculum development in the school-work field, foreseeing a long, hard struggle.

"I don't see any development for the curriculum in this field."

"It's as much as I can do to keep things going."

"It depends on the goodwill of staff."
The negative views, supposedly overcome during the early days of the school-industry debate were still seen to exist.

"Our main aim is academic - we're not influenced by industry breathing down our necks."

Several respondents pointed to courses about to begin, such as CPVE, questioned the impact of TVEI, and looked forward to the impetus of Industry Year 1986.

QUESTIONNAIRE FINDINGS FROM HEADS OF DEPARTMENT IN COUNTY X - 1984

Heads of Department were chosen as recipients of the questionnaires for reasons explained in chapter 2. There is a basic assumption that Heads of Department are aware of all activities involving school-industry agencies within their Departments. This had to be weighed against the cost of producing a questionnaire for every staff member, given that such an enquiry only served as a small, introductory part of the total research.

Agencies specified were those mentioned most frequently by Headteachers in interview. Hence, SATRôs are omitted and the County Industry-Education Liaison work is included, since in conversation, Headteachers saw it as being synonymous with the work of national agencies. Likewise, Headteachers afforded equal importance to mini-companies, although they do not qualify as an agency according to the author's definition in chapter 1. However, since a consequential and logical progression was being attempted throughout, each stage of the research determining the next, decisions were taken to format the questionnaire based upon previous findings.

The questionnaire findings are diagrammatically presented in 145
two ways:-

1. Department Analysis (Appendix 46).
2. School Analysis (Appendix 47).

These provide the necessary information to progress to the next stage of the research (chapters 6 and 7).

A visit to the County Hall offices of the Local Education Committee, and to a District Education Office, served to support the general findings gained (Annexxes 2, 3, 24). Further explanatory information was given, for example upon:

. Courses which had been run in the County which may have explained high responses within certain subject areas, since staff had been on so recent a course.
. The philosophy of the Industry Education Liaison Unit, which had an effect on the schools and subject areas.

Fig.5.7 Responses to Questionnaires sent to Department Heads

29/38 schools responded positively: 76%

9 schools did not take part owing to either "involvement with other research work" or "a disinterest".

In the 29 schools which took part:

416 questionnaires were distributed.
315/416 questionnaires were returned: 76%

A Summary of Findings

The Influence of the Agencies

Many Heads of Department had heard of the various agencies, but
61.5% were unable to say that the work of their Department had been influenced by them. This suggests that many Heads of Department had only a passing acquaintance with the work of agencies. Even where there was a positive response to whether a Department had been influenced or not, the response rate to the questions that followed, which attempted to investigate the areas and extent of the influence, was much lower.

**Careers Departments**

Heads of Careers Department, often working within a Social and Personal Education context, appeared to be the best informed about agencies which attempt to foster school-world of work links. They were the most influenced by the agencies generally and seemed confident in commenting on the effect of the agencies on young people's preparedness for the world of work.

**Business Studies, Economics and Commerce Departments**

Business Studies, Economics and Commerce Departments were more affected by the agencies than any Departments other than Careers. This may be due to the nature of the aims of the agencies, several of which focus on particular subject areas: e.g. UI can be used to complement 'A' Level Economics or Business Studies.

The relative concentration of responses in these subject areas may be due to the internal operation of the school - for instance, materials from the agencies may be sent as a matter of course, to the Head of Careers. The method of distribution of information within the school may well be a cause of the problem highlighted by these findings.
The Cross-Curriculum Approach

Some of the agencies on the questionnaire aim to cross subject barriers, and thus the influence upon Departments other than Careers, Business Studies, Economics and Commerce was expected to have been greater. SCIP, for instance, purposely aims to involve teachers other than Careers teachers in its work, and the Careers Research and Advisory Centre (CRAC) aims to be cross-curricular in its approach. The findings suggest that, apart from individual attempts at innovation, the agencies have influenced a minority of subject areas within each school, the most unaffected area being that of Modern Languages:

Only 8% of the Modern Languages Departments reported an influence.

The Agencies

Heads of Department were more familiar with the CRAC, YE, and the Industry Education Liaison Unit in the County, than with other agencies.

CRAC

30% of the Heads of English in the sample claimed that their Departments have been influenced by CRAC.

This may have been as a direct result of a recent in-service course run by CRAC (Annexes 23, 24), which involved English teachers. However, CRAC is a well established agency with many published materials which are well circulated in schools.
Young Enterprise

YE was well advertised when it was first taken up by the schools in the County. It affects only a small fraction of the school population and involves only one member of staff playing a secondary role in its organisation.

The subject content in 17% of Commerce Departments in the sample, has been affected by Young Enterprise.

The findings imply that YE had begun to affect the curriculum, although it is "extra-curricula".

19% of Heads of Careers Departments claimed that they used Young Enterprise's 'key ideas'.

The key idea of 'participant learning' held by YE, was beginning to be incorporated into the curriculum of schools.

The County Industry-Education Unit

This appears to have influenced Mathematics Departments more than any others.

57% of Heads of Mathematics and Computer Studies Departments who responded, said that the work of their Department has been influenced by the County scheme.

This would seem to be as a result of the existence of the 'County Certificate - Basic Skills Arithmetic' scheme which was produced in response to a call from employers to provide the means of demonstrating competency levels below CSE level, through internal certification.
The Agencies' Effect

Those who were able to respond to the extent to which agencies increase young people's preparedness for the world of work, were generally very positive about the effect which agencies have. When asked to specify in which areas such an increase had been,

9% of Heads of Careers said that knowledge and awareness of pupils had increased as a result of involvement with Understanding Industry.

This relates directly to the aims of UI which by the scheme's very nature serves to increase knowledge and awareness rather than skills and attitudes.

The author is aware that many Heads of Department would have found the answering of questions 5 and 6 difficult, since they had had only superficial contact with a scheme. However, if anyone was confident enough to attempt a response it served as a basis on which to found further research.

THE COUNTY CURRICULUM POLICY

Before the next stage of the research began (Case Study work in four schools - chapters 6 and 7), the County Curriculum Document outlining policy, was made available to schools. (County X, 1984).

The policy was derived in response to Circular 6/81, from the DES, which states that:

"Local Authorities have a responsibility to formulate curriculum policies and objectives which meet national policies and objectives, command local assent, and can be applied by each school to its own circumstances."
In the Autumn Term, 1981, Headteachers of all the County's schools, were asked to submit reports outlining curricular aims of the school, after discussion with Governors. The reports from Headteachers, the Advisory Service and the Chief Education Officer, formed the basis of the policy, which was discussed and agreed with all Headteachers.

Regarding school-work links, the following is pertinent:

Para. 3.1. "Pupils should have an understanding of the demands which society places upon the individual."

Para. 3.3. "Considerable attention should be paid to preparation for the world of work......"

The development of the curriculum is stressed:

Para. 3.4. "Schools must constantly strive not only to keep up with the demands of change, but even attempt to anticipate change."

Para. 7.12. "Schools should have strategies for regular curriculum review and regeneration."

Summary

School-work links involve a wide range of people and organisations, both local and national. Curriculum development in this field appears to be ad hoc, with no planned strategies. County X was chosen for an in-depth study of some national agencies and the development of school-industry work, and its previous involvement with national agencies has been alluded to. Interviews with Headteachers have shown a wide range of school-work activities and a
similar range of views concerning school-industry links. Heads of Department have only a passing acquaintance with the work of agencies, and the cross-curricula approach of some agencies appears to have influenced a minority of subject areas within the County's schools. The County Curriculum Document was given to schools in November 1984, one aspect of which outlines guidelines for the world of work in the secondary school curriculum. It was against this background, and upon the basis of the previous research work, that a study within certain schools was specified and undertaken.
CHAPTER SIX
THE MACRO APPROACH - YOUNG ENTERPRISE

The next two chapters describe the 'practice of the action' (chapter 2) within the schools. They represent the most time-consuming and extensive part of the research, based on the background given in the preceding chapters.

Choice of Agencies

The following points were instrumental in the final choice of agencies which was contingent upon the research data previously collected:

- Young Enterprise and Understanding Industry were agencies which predominated in the questionnaire responses.

Contrasts between the two schemes are that:

- YE is a scheme which favours experiential learning techniques, whereas UI favours a more traditional approach.
- UI is curriculum-based, linked with the AEB Business Studies 'A' level course, whereas YE is defined as 'voluntary, quite distinct and apart from school-work or vocational training'.
  (Learning by Doing, Young Enterprise Publication, undated).
- YE was very prevalent within the County, whilst UI had faded rapidly over the 1982-3 period, despite experiencing expansion nationally.

Choice of Schools

The choice of schools for an evaluation of the effects of the
agencies on the curriculum was limited. The majority of Heads of Department were unable to describe agency use in depth, in their schools. (Chapter 5).

From information gained after Headteachers' interviews also, the following schools were chosen for a study of YE:-

**Fig.6.1 Schools Chosen for a Study of Young Enterprise**

<table>
<thead>
<tr>
<th>SCHOOL NUMBER</th>
<th>AGE-RANGE OF PUPILS</th>
<th>NUMBER OF PUPILS INVOLVED</th>
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<td>33</td>
<td>11-16</td>
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The reasons for the above choice are listed below:-

**Young Enterprise**

**School 1.** It had an established YE Scheme.

- It is in a different town from Schools 31 and 33.
- The Achievers were 5th and 6th form pupils.

**School 31.** It had an established scheme.

- It is in a different town from Schools 1 and 33.
- The Achievers were 6th form pupils.

**School 33.** It had an established scheme.

- It is in a different town from Schools 1 and 31.
- The Achievers were 5th form pupils.

The three Headteachers agreed that the research could be conducted in their schools.

**The Chronological Sequencing of Events**

The schools were late in beginning to run their companies owing
to the kits' late arrival from Head Office via the Area Organiser. The kits, which include all details and paper matter about forming a YE Company, did not arrive until the second week in October. This meant that the Achievers' initial enthusiasm and the Christmas market were affected.

Pre-arranged dates with the Industry Education Liaison Officer were:-

March 4th - 9th  -  The Examination.
March 29th  -  Companies to cease trading. Attendance records with an analysis, showing percentage of total attendances were to be sent to a Local Education office.
April 19th  -  Six copies of the Company Final Report and accounts were to be sent to a Local Education office.
April 26th  -  Presentation Evening.

Usually, the Presentation Evening is held in May. It was decided by the County organisers to liquidate companies earlier in 1984-5. This, together with the late start, shortened the whole experience.

A Summary of Each Company's Activity

The following have been based on data collected from the author's diary, teacher and adviser interviews, pupil evaluation sheets and documentation available.

School 1

School 1 opened in 1953, and is an 11-form entry Comprehensive
school with a pupil population of 1,750, in a town population of 10,000, and surrounding district, 6,000. In the 1984-5 school prospectus, it states:—

"the curriculum, in its full sense, comprises all the opportunities for learning provided by the school, including the 'extra-curricular' activities."

There is no mention of the YE scheme in the school prospectus.

Under the guidance of teacher A, an Economics teacher, and Advisers $A_1$, $A_2$ and $A_3$, from Firm 'p', the Achievers met on the firm's premises on a Tuesday evening, weekly, between 1600-1800 hours.

Fig.6.2 Visits Made to the Company by the Author

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<td>-</td>
</tr>
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<td>26.02.85</td>
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In the first instance, the following points were noted:

Elections for the Company roles came before any discussion of products, or even choice of products. The elections were haphazard, because Achievers did not know each other, some being fifth formers and others sixth. There was no seconding. Adviser $A_3$ reflected later that the Directors were wrongly cast in their roles.
Boys and girls sat separately around a large boardroom table at all meetings. Discussion in the first few meetings was amongst individuals rather than across the table.

The Advisers wished the Managing Director to take control once elected, but he was lacking in confidence. Hence Advisers took very active parts in the early sessions.

The absence of the Teacher A, initially, caused problems, as questions were asked such as the availability of school premises, materials, the school's philosophy about discos and fireworks.

The Achievers approached choosing the name of the Company with some frivolity. The Advisers commented that they allowed this to continue, for the Achievers "would come to see the need to make decisions fast and seriously". The company chose its name M.S.I. - Multiple Services Incorporated, based on its varied choice of products - personalised letter headings, Christmas cards, candles and peg stands, and services - administration of the school tuck shop, staff car washing, computer games, two discos and envelope addressing.

Owing to the delay in the opportunity to raise share capital, because of the lack of documentation from YE, the possibility of obtaining funds from a bank overdraft was discussed. The Achievers eventually opened their bank account in the fifth week - a slow start.

By the third meeting, there was a notable difference in Achievers' attitudes and behaviour. The Adviser A1, gave much financial advice to the whole group and commented on the pupils' performances in their roles. This was "to help them realise the
importance of taking on their roles and acting effectively in them."

After several visits to this, and other companies, a few 'observation areas' were defined, which eased recording, giving a format to the author's diary. These observation areas were:

- Company Organisation.
- Roles and Relationships.
- Company Achievements.
- Problems which arose.
- Comments made about the Scheme.

**Company Organisation**

Achievers were heard to ask whether a meeting was formal or informal. This was difficult to gauge, as all meetings began around the boardroom table. Most were conducted in boardroom fashion, but only two Board Meetings were held, when reports were given. The formal Board Meetings were videotaped, and the organisation of those meetings was far superior. This suggests that the Achievers reacted to the presence of the video-recorder. The presence of the author at other Board Meetings did not evoke a similar response.

The Pupil Evaluation sheets gave details about a lack of co-ordination during production. Achievers required "more of a line", "a better production technique", and hinted of boredom when asked to be involved in production. One person was observed placing items into a bag, and the next person was removing them. It took ten minutes for the Achievers to discover this. An Adviser was heard to comment at one meeting, "You're like our production people. They talk all the time without doing anything." At the liquidation stage, the Final Report listed production of printed letterheads,
and school discos as being the most lucrative activities. Very little production was involved in either of these - the company subcontracted. In retrospect, more Achievers were necessary, but Teacher A reported canvassing difficulties.

Roles and Relationships

After a timid start, the Managing Director began to play a more forceful role in November. Teacher A claimed him to be the pupil to have benefitted most from the experience, but he was always a less dominant personality than the Accountant. The Accountant appeared to have the major responsibility. Often he chaired meetings in the Managing Director's absence, and arranged to meet Adviser A on a few occasions in school time. This reflects the amount of paperwork required of the Accountant, and the amount of time this particular individual was prepared to give to the Company.

The Production Manager was not forceful, treating his role lightly. A much stronger control over production was called for in December, but the Production Manager did not prepare a final report, and proved to be a poor team member. Teacher A was to take a forceful line eventually, telling the Achievers to speed up production. This was in direct conflict with the Advisers, who suggested that the Achievers were bound to have production difficulties, but who preferred to make no comment, thus allowing the Company members to find and solve the problem themselves. The role of the teacher was a difficult one to ascertain, as was proved by the Managing Director's question, "What's the point of the teacher coming?" This may be partly answered, since the Adviser A spent part of one session giving Teacher A advice on aspects of
accounting work. Also, the Achievers related to the member of staff in a very informal way, possibly less formally than in the school environment.

There were times of friction, "why don't you do something?", and a lack of enthusiasm, before Christmas. The Secretary criticised the Managing Director very directly, and several Achievers noted they were unhappy with individuals' performances in their roles. One Achiever remained passive, and was referred to, in her absence, as the 'nominal member', but this same person achieved a high examination mark, together with the Secretary, who was far more active, (and the daughter of Adviser A₂). This raises the question as to whether the examination performance is a reliable measure of the experiential aspect of belonging to YE.

**Company Achievement**

Production of several items, for instance peg mats, which fell apart, faded. Several discussions were held about budgeting, wages, resignations, reject orders, production problems, poor services, costs, fire regulations, safety standards and preparation of reports. The Advisers constantly drew the Achievers' attention to their mistakes, and reviewed their roles. All decided to enter for the examination, and the firm 'p' agreed to pay the entry fee.

From the Pupil Evaluation Sheet findings (Appendix 12b), the Company achievement was recorded quite positively by pupils, apart from the Sales Manager, who felt the Company had achieved little, and he resigned, and also Achiever 28 - who had a poor attendance record. There appear to be isolated days when they deemed Company achievement to be poor - but no pattern is shown.
In the end of year report, M.S.I. gave the following figures for 1984-5:-

<table>
<thead>
<tr>
<th>Category</th>
<th>Figure</th>
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<tbody>
<tr>
<td>Number of shares</td>
<td>146</td>
</tr>
<tr>
<td>Maximum attendance</td>
<td>90%</td>
</tr>
<tr>
<td>Minimum attendance</td>
<td>10%</td>
</tr>
<tr>
<td>Average attendance</td>
<td>54%</td>
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</table>

Wages were 10p/hour, later to become 10p per meeting

The Company paid a dividend of 44.2p

**Problems Which Arose**

- There were differences between the fifth and sixth formers. The fifth formers complained of lack of communication, and were generally less involved because their school timetable was more demanding. All the fifth year resigned and the Company was reduced to seven members until two more joined. Teacher A remarked on a rivalry between fifth and sixth, whilst the Final Report noted "ill-feeling". Adviser A recommended that the scheme be given to sixth formers only in the next school year.

- The Achievers felt they should succeed primarily because they were in competition with another school company run by a Remedial group within the school. They were also faced with mock examinations and the work experience week in the fifth year which vied for their time. The teachers' three-day strikes affected the operation of the Tuck Shop.

- Problems arose with the 'work-force' and with sub-contractors at Christmas time, resulting in Christmas cards not being ready for the Christmas market. This, the Final Report
explains was "because the task they were doing was not fully explained."

Looking back, the Company thought their marketing poor, since a number of the products made were more expensive than originally calculated.

The Advisers recommended the following changes based upon the year's performance:

- YE should be 'sold' to the school, to canvass members.
- There should be a time at the end to consolidate all the principles learnt.
- The timing should be changed to earlier in the afternoon. This suggests that the Adviser, A3, did not appreciate the number of time-taoling constraints which affect schools.
- Continuity should be encouraged with the seventh year Achievers advising the sixth formers.
- One month's planning and thinking should precede the sale of products.
- A better link could be forged with the school and the firm, as a result of YE.

Comments made about the Scheme

Achievers were aware that the fourth and fifth years were not a good sales market, and said that they had to overcome mockery because they belonged to YE.

Adviser A1 disapproved of the examination papers - "examination papers tend to be incoherent." (See Appendix 44).

The Area Organiser who attended the penultimate meeting, saw the administrative structure of YE as being inconsistent and
therefore shaky. "It is a voluntary body with full-time people, for
one year." In 1984-5 a degree of continuity was achieved with a
two-year secondment of the Regional Organiser.

School 31

School 31 opened in 1974, and is an 8-form entry Comprehensive
school with a pupil population of 1,400 pupils in a town population
of 26,000. The teacher involved - B - was a sixth form tutor who
taught Art, and the Advisers, A4 and A5 were from firms 'q' and 'r'
respectively. The Achievers met on Wednesday evenings, weekly, for
two hours on school premises. If a Board Meeting was called, the
meeting was held at firm 'q', in its Boardroom. Only Directors
attended this meeting, whilst production continued on school
premises.

Fig.6.3 Visits made to the Company by the Author

<table>
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<th>DATE</th>
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The Company chose to manufacture mobiles from perspex and to
construct earrings from basic components. During the first meeting,
the Company named itself Perspectives, and by the second meeting had
designed a 'logo'. In the case of School 31, the products were
discussed before elections took place, and the Achievers, all sixth
formers, requested that the roles be explained by the Advisers
before they committed themselves to being elected. The Achievers were told that they could change roles after Christmas if they wished, and this they chose to do, although the only change which occurred was an interchange between Sales and Personnel Managers. The Managing Director and Sales Manager were sufficiently confident to execute their roles from the first meeting, and the Advisers were rarely to address the whole Company again.

**Organisation**

There was some initial confusion over the meeting place on school premises. Most meetings were held within the Art Block, where machines were available to cut perspex. On most occasions meetings would not begin until an Adviser arrived. It was decided to have a ten minute discussion before each meeting, but this broke down.

Two Achievers arrived from School 38. Being unimpressed with their own school company, they asked to join Perspectives. They were also at School 38 when the Author arrived there to trial the questionnaire for YE. This caused some confusion in both companies, but their attendance dwindled at School 31 after Christmas.

There was a period of lethargy after Christmas. Teacher B remarked on the need to "keep up momentum", which was a problem. The lethargy felt is indicated by responses on individual evaluation sheets, when, at the end of January, nine out of fourteen Achievers thought nothing had been achieved by the company at its weekly meeting. The remaining five Achievers were absent. Some motivation was found when it was decided there was a market for St. Valentine's Day hearts made of perspex.
There was little organisation of Achievers into a production line, or into their allocated roles throughout the life of the Company. Too much chatter was recorded by several Achievers on their individual evaluation sheets.

Roles

The impression gained, and confirmed was that no clear direction was given to the Company as a whole. The Managing Director did not help manually, but supervised between two or three workers most of the time. Although the Managing Director was aware of a lack of organisation, her role was difficult, thus defined by Adviser A, who noted that she also had to work alongside pupils at school. The Managing Director displayed a role conflict throughout. There was a "tell us what to do and we'll do it" demand for a more dominant role from the managers. However, Teacher B commented that he thought all Achievers had benefitted from the scheme, having "gained in stature, self-respect and a sharpness in making decisions". The Accountant and Secretary worked individually with Advisers from the beginning of the Company. The Advisers allocated most of their time, energy and advice to those Achievers dealing with paperwork.

Company Achievement

The Bank (firm 'r') represented by Adviser A, agreed to loan money at a low rate of interest so that the Company could begin, in the event of no shares being sold owing to late delivery of Company kits. Production was slow at the start of the business year, as members of Perspectives learnt production techniques, such as how to
cut and sand perspex to a degree of quality acceptable to the 
Production Manager. Mobiles were slow to construct and the market 
not extensive, so earring production was encouraged.

A Christmas Fayre held in the school resulted in excellent 
sales. The Company received free publicity in two local newspapers. 
The advertising was very well organised, with an Achiever walking 
through the town wearing a sandwich board advertising the sale of 
company products. There were also advertisements placed in school 
circulars. The Company was contacted by a local shopkeeper who gave 
a large order to purchase earrings in bulk.

The Perspectives Company included in its Final Report:-
Number of shares held: 298.
It cost 4p/share.
No wages were paid.
No dividend was paid.

Problems

Several meetings were cancelled owing to a lack of Advisers 
or Achievers. After February, Adviser A_5 was transferred by 
his firm 'r' and the Company suffered as a result. The 
Company was "unable to arrange for an auditor to check its 
accounts". (Final Report, 1985).

Adviser A_4 noted that there was a "lack of people being 
involved". This problem was not solved, and resulted in 
friction. There was a need for advice and organisation. The 
Managing Director summarised this - "We need a more formal 
atmosphere to get people to face Young Enterprise in a more 
ergetic and realistic way." This suggests there is value
in meeting off school premises. Attendance was poor, with several school activities intervening. It appeared that the pupils interested in YE were those actively engaged in several other 'extra-curricular' activities. Teacher B remarked that "there is so much pulling on their time". General Studies assignments, the School Play and several trips intervened. The Production Manager was absent for six weeks, but a deputy was appointed to overcome the problem.

One problem which could not be overcome was the failure to obtain the large order in writing. The order was cancelled after the items had been produced. The Managing Director's comment was:

"This was a mistake that has been marked down to experience, and although the Company did not have a chance to put into practice the knowledge learnt from this, hopefully the members of 'Perspectives' will remember the incident in later business ventures."

This problem resulted in the lack of a dividend payable after liquidation.

Comments Made About the Scheme

Adviser A₄ remarked that "there is something to be said about taking them out of the school environment". He suggested that Company organisation would have improved had this been the case. He also supported the YE suggestion that three Advisers should be allocated to each Company; Perspectives suffered through a lack of
Production/ Sales support and general advice.

There was a tendency for managers to call Achievers "workers", and an 'us' and 'them' atmosphere was apparent. Since YE attempts to avoid this situation, calling the pupils 'Achievers', it is notable how strong an impression is gained through a separation into Directors, and 'the rest'.

School 33

School 33 was opened as a Girls' School in 1844 and now is an 11-16 Comprehensive with 900 pupils, in a town population of 11,000. The teacher involved - C, was an Art teacher, who also taught a course entitled "Industry Awareness" as part of the Social Education programme. Four Advisers were involved, A6 and A7 from firm 's' and A8 and A9 from firm 't'. Three of the four were accountants. The Company met weekly on the school premises, on Monday evenings from 16.30 to 18.30 hours.

Fig.6.4 Visits Made to the Company by the Author

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The Company chose its name 'Future Phase' and elected members of the Board. Advice was given about the voting system and the nature of Company positions before votes were cast. In this case,
the pupils were advised to take care in their choices – choosing the right people is paramount to the success of a company. The Company chose to manufacture "Dusty Bins", snake hand puppets, spice racks, stuffed cuddly elephant heads, an advertising handbill and fur fabric packs. Prototypes were made and used to aid market research. After Christmas all company members changed roles.

**Organisation**

Organisation was affected by infectious enthusiasm, which Teacher C thought was because the Achievers still expected to obtain 'fun' from such activities, and also because they had experienced a production line simulation during the Industry Awareness Course. Workers with appropriate skills were asked to train other members in production. A plan of a factory floor was drawn up and each production stage was allocated a separate area. The Achievers worked in groups and benefitted by obtaining a room with sufficient space.

**Roles**

Teacher C began controlling the first session because the Advisers were late. She took a very active role, especially since most materials needed in meetings were obtained through her. She felt "I must take a back step. They automatically come to me", but enjoyed the experience, remarking afterwards, "on a personal basis, you can forget you're a teacher towards the end". The Advisers, however, felt "they are so self-sufficient they don't need us really" (A6).

In March, the Advisers were told they were no longer required,
as the teacher took over the role of adviser, in helping to liquidate the Company and produce the Final Report. The Advisers worked with groups or with individuals, although one Adviser gave a short explanation of his work to the whole Company, requested to do so by the Managing Director. The enthusiasm and forward role shown by Teacher C and the number of Advisers involved allowed Advisers and Teacher to talk at length during meetings, often neglecting the majority of Achievers.

The Achievers generally exhibited an immaturity of behaviour, but fitted well into role stereotyping.

Company Achievement

According to the Achievers, the Company achieved something at every meeting (from individual evaluation sheets), with the exception of the meeting on 26th November. Most Achievers thought the Company achieved nothing then, or had even regressed. The Managing Director thought otherwise. However, during the life of the Company Teacher C felt that "all Achievers had developed, and some had become better communicators. A boy had learnt how to use a sewing machine, a Secretary was impressive, and an Achiever could now transfer creative skills very rapidly." Adviser Ag remarked on the Company's enthusiastic approach.

The Company reviewed its performance and achievements at Christmas, and during the school year had considered marketing methods and costing, produced production graphs and a logo. The Achievers decided to produce some products before Christmas and some afterwards, spreading their workload. In their Final Report, they listed:
Number of shareholders: 72.
Number of shares held: 239.
Percentage attendance: 93% average.
Maximum individual attendance: 100%.
Minimum individual attendance: 73.3%.
Wages of 5p/hour were given and a dividend paid of 17p/share.

Problems

Teacher C listed several problems such as an evening with no Advisers, a number of improvements which should have been made, for example in the area of Sales; varying degrees of commitment, and the fact that the Achievers showed a lack of interest in forward planning. Adviser A_9 thought that hardly anything went wrong, and thus very little was learnt from mistakes. The usual type of frustrations occurred, for example, Achievers were heard to say:

"You're hasseling me."

"I'm a general dogsbody."

Attendance was hampered by the mock 'O' level examinations which involved everyone.

Comments made about the Scheme

Adviser A_6 thought that a solid week's project would be a better way of presenting YE. The Advisers corporately voiced their discontent with the change of personnel after Christmas, which added confusion to their roles. Those from firm 't' were concerned over the complicated paper system for Accountant and Secretary.
Liquidation

In all three cases, liquidation of the Companies resulted after a general anti-climax, coinciding with the Easter break. Meetings were stopped by March, and liquidation appeared to be almost incidental, with the Accountants and Managing Directors meeting with Advisers or staff to organise accounts and the Final Report, finalising arrangements for the Presentation Evening.

The Young Enterprise Presentation Evening

The Evening was sponsored by a large company in the County.

Eight YE companies were represented to present the work they had done throughout their company's life. Two companies did not produce reports and were not represented. Certificates should have been presented for those who had attended for eighty percent of the Company time, but these were not available, as the County was holding its Presentation Evening before other counties. The success of YE was seen to be based upon "Advisers and their salesmanship", and several companies were unable to function owing to lack of Advisers. The new Regional Director painted a dim picture of the future, as he believed the aim of Industry Year 1986, to promote eight individual companies in schools, to be unrealistic. He pointed out that there exists a struggle for Advisers and sponsors, and did not think the target achievable. The Pre-Vocational Developments were cited as being an ideal medium for a built-in YE module in the curriculum. There seemed to be a difference between what the judges wanted and what the schools perceived they wanted in the presentations, which reflected the whole school-industry debate.
LINES OF ENQUIRY

The lines of enquiry relating to the main aims of the thesis, form the headings of the following section. To reiterate, the lines of enquiry are:-

. the interpretation of the aims of each agency by the individuals involved.
. the experiences of participants over the length of the courses.
. individual's views of the agencies and suggestions for improvement.
. the administration and role of the agencies within the broad framework of the school curriculum.

Data collection from various sources (following triangulation procedures) provided the information contained in the following section. To note how data was analysed with reference to the lines of enquiry, the reader should refer to Fig.6.5.
1. The Interpretation of the Aims of the Agency by the Individuals

Data source: Staff Interviews: Q. 4
Advisers' Interviews: Q. 2
Pupil Frequency Distribution: Qs.2, 4, 5, 9, 11, 12, 14, 15, 16, 20, 30
Pupil Interviews: Qs.2, 11

2. The Experience of Participants over the Length of the Course

Roles

Data source: Staff Interviews: Qs.6, 9
Advisers' Interviews: Qs.3, 4, 5, 6, 8, 8b, 9, 10
Individual Evaluation Sheets: Q. 2

A Summary of Weekly Experiences

Data source: Individual Evaluation Sheets: Qs.3, 4, 5

Overall Experiences

Data source: Pupil Frequency Distribution: Qs. 3, 6, 7, 18, 10, 17, 28, 22, 23, 31, 33, 16, 25, 26, 29
Pupil Interviews: Qs. 3, 4, 5, 6, 7, 8, 9, 10, 13, 14, 15

3. Individuals' Views of the Agency and Suggestions for Improvement

Data source: Staff Interviews: Q. 7
Advisers' Interviews: Qs. 7, 15
Pupil Frequency Distribution: Qs.13, 19, 21, 34
Pupil Interviews: Q. 19

4. The Administration and Role of the Agency within the Broad Framework of the School Curriculum

Data source: Staff Interviews: Qs.1, 2, 3, 5, 8
Advisers' Interviews: Qs.1, 11, 12
Pupil Frequency Distributions: Qs.1, 24
Pupil Interviews: Qs.1, 12, 16
1. The Interpretation of the Aims of Young Enterprise by the Individuals Involved

The staff involved thought that YE aimed to provide a "grounding" (A), an awareness of the commercial world (B). Staff C was perhaps more realistic, in interpreting the aims simply to "discover something about running a small business". The value of experiential learning was noted - "it's a question of learning by experience rather than a text book or notes" (A), whilst C commented that YE aimed to give "a series of pegs on which to hang experiences". Whilst the scheme does not endeavour to have a vocational leaning, B saw its aim "to entice them away from the world of academic subjects into the world of commerce".

Similarly, Advisers commented on a vocational aim, "it is to help someone with a career in mind" (A4), "to increase prospects" (A1). Most Advisers remarked upon a very basic introduction to the industrial environment, but noted the differences between education and the business world, and thought YE provided "a good insight into what the outside world is all about". Stress was put upon the value of "teamwork" (A6, A7), rather than the development of the individual in education, and on skills not normally associated with school (A1) which reap success, such as thinking, cross-fertilisation, communication and understanding problems (A3).

Individual schools' frequency distribution after administration of attitude questionnaires are filed in Annex 30b.

To summarise, the answers of all forty-five Achievers are grouped for analysis. Thus, in questioning the interpretation placed upon the aims of YE, by the Achievers, two-thirds of the Achievers thought that being involved would help get a job, that is
30/45 Achievers joined for this reason, amongst others.

When pupils having high, medium and low attitudes to the scheme were interviewed, to give an impression of the breadth of thought amongst Achievers, they felt that since they had completed YE, it would give a "reasonable advantage" when applying for a job. (Sc.1, High). "The fact that I've shown an interest and been willing to participate at school" (Sc.31, High) was seen as a positive advantage. Low scorers were generally more reticent about the scheme's value, simply because they had already decided to follow a specific career pattern, for example, "No, it won't help me get a job, I want to be a political journalist" (Sc.33, Low).

30/45 believed that an aim of YE was to make them more ambitious and 25/45 thought that their chances of achieving their career ambition would be higher as a result of taking part, although few had been impressed by the previous year's performance.

In asking Achievers why they considered joining YE it was hoped that they would reflect in their answers what they interpreted the aims of YE to be. They expected it to "enlighten" (Sc.33, Low), provide a passport into the world of work, "it's something else to put on my school profile" (Sc.31, Low), "to gain me another interest" (Sc.33, Medium). One Achiever gave a basic aim, perhaps overlooked by all, yet fundamental to industrial performance, "I joined to make some money" (Sc.1, Medium). Almost all Achievers, 43/45 expected YE to provide a practical accompaniment to theoretical work at school.
2. The Experiences of Participants over the Length of the Course

The experiences of staff over the length of the scheme in a school year are associated very much with the administration of the agency within the broad framework of the school curriculum (p. 188). However, they were asked for their views about the role they had to take, and in the cases of staff A and B, they thought this to be "a link outside meetings; a prompting role; a back-up; a mouthpiece for the school." This low-key, passive role is one supported by YE. The Regional Organiser for Young Enterprise, in an interview with the author in October 1984, felt a teacher's role was "useful to iron out complications, but was not active". Whilst C knew this to be true, she found it difficult to maintain: "the pupils know me, I'm the person who talks to them about joining it; they refer interim questions to me; I'm the cheer leader. This reinforces the fact that they refer to me in meetings, which I don't think is a good thing. It devalues the potential of having Advisers there."

The staff were aware that their roles were not easy, and at times poorly accomplished. "I'm not as committed as I should be, because it's an after school activity and I treat it as such." (A). B thought he would like to be more deeply involved, and confessed an ignorance about what YE was hoping to achieve. C was very aware of the Art and Craft emphasis placed on products and would have liked advice about technology and its use in product design.

Advisers claimed to have had little experience of talking to young people in the past. One Adviser (A1) was a private music teacher and youth leader, taking the most active role in M.S.I. (Sc.1). Apart from interviewing occasionally, other Advisers were on new ground. Those who had been involved with YE in previous
years noted that they had prepared more for meetings when they were asked to take a more active role by giving "lectures", but most Advisers gave perhaps half an hour weekly, to reviewing Company minutes. If they were chief Advisers, those who liaised with the Regional Organisers, a minimal amount of time was geared towards paperwork.

YE was thought a useful vehicle for attracting young people into industry, and $A_1$ saw this as a "spin-off". His firm had become involved with other schemes in education as a direct result of the YE link with the school. The firms involved were happy to achieve a link with the community through the school ($A_2$), although several Advisers saw the link as a method of getting potential recruits ($A_8$). "Young Enterprise provides a short circuit, to find out if anyone is interested once a vacancy arises" ($A_9$). The vocational needs of education were highlighted because of YE ($A_1$). Of concern, are the number of Advisers, $A_4$, $A_6$, $A_7$, who thought that their firm had not benefitted at all, and that YE had not helped their relationships with the school ($A_6$, $A_7$).

$A_6$ remarked upon his role as being "unpaid supervision", whilst $A_1$ found no difficulty with his role since "problems are on a different scale, often mundane". The only difficulties expressed were those which occurred when the ideal number of Advisers were not available for each Company. Ideally, there should be three areas of management represented (page 85).

Advisers would "welcome information on how the school runs the scheme and how it is integrated" ($A_1$). Other help required from educationists would be appreciated, such as "a knowledge of pupils beforehand, and a talk with the Head of Year". Whilst $A_3$ felt that
involvement from the school could be improved, A₂ was reticent to allow further involvement of staff, since "the benefits of the Advisers' contribution would be lost". A₉ was wary of becoming a "stereotyped school master" if more advice was taken from education.

Perceptions of young people by Advisers were affected by YE. A₂ saw a "fair amount of immaturity", A₈ felt there was a lack of discipline in their behaviour, which would be unacceptable in industry. A₄ had learnt to overcome the age-gap, and not to be put off by appearance, saying that he would possibly interview a young person more fairly as a result. A₆ and A₇ were aware that "shirkers don't stay on after school", so "Young Enterprise pupils are the best of the bunch". Advisers perceived education to give "a misconception of industry" (A₁), and the education system was criticised for not imparting an awareness of what the business would require (A₂). A₄ said YE made him more aware of problems within schools, such as school organisation.

Achievers were asked for a weekly indication of their performance and experiences when they completed the pupil evaluation sheets. These were able to provide some honest comments, for instance, in School 1, the Sales Manager only rated his performance in a positive way once. (Appendix 12b). The Managing Director of School 33 rated his performance lower when he became an Achiever off the Board after Christmas. An Achiever in School 33 claimed that absenteeism amongst Achievers affected the way the Company was able to operate.

When asked if they had learnt something on a weekly basis, most Achievers recorded learning something every week. Achievers 27 and 28 from Sc.1, were those who resigned. In School 31, three
Achievers recorded that they had learnt nothing, and the Secretary recorded that her learning diminished. School 33 gave a more positive response, all learnt something from the Scheme. Although Achievers were reticent to indicate learning, it was noted that on several occasions, their ideas had changed concerning the world of work, even though the Achievers were unprepared to say how. Those whose ideas about the world of work had changed most were those in Directors' positions - Sc.1: the Managing Director; Sc.31: the Managing Director; Sc.33: the Purchasing Manager.

Questioned about the amount of advice they received, Achievers indicated whether they had been advised or not. In Sc.1, an Achiever had been given no advice over the course; in Sc.31, everyone had been advised on some occasion, and in Sc.33, the Accountant and Personnel Manager rated advice helpful.

Fig. 6.6 A Record of Advice Given

<table>
<thead>
<tr>
<th></th>
<th>Number of Times Advice Given Recorded</th>
<th>Number of Times Advice Considered Helpful</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sc.1</td>
<td>83</td>
<td>56</td>
</tr>
<tr>
<td>Sc.31</td>
<td>112</td>
<td>39</td>
</tr>
<tr>
<td>Sc.33</td>
<td>165</td>
<td>56</td>
</tr>
</tbody>
</table>

Most advice was given to Achievers who had the paperwork.

YE was not linked with school by some Achievers. When asked if school seemed more worthwhile as a result of belonging to YE, they said, "It doesn't have any bearing on school" (Sc.31, High), "I don't consider it part of school" (Sc.33, High). This was not the view held by all, for one Achiever mentioned how well it complemented subjects at School (Sc.1, High). Even lower scorers on the attitude questionnaire credited YE with some affect upon their
view of school, "it brightens Mondays up" (Sc.33, Low), "it's given a better outlook towards work" (Sc.1, Medium).

37/45 Achievers felt that their curiosity about the world of work had been awakened by YE. When questioned further, Achievers specified certain areas which they would like to investigate further:

"It's made me look at other companies around."
"Personnel, and sorting things out."
"The actual organisation of a company."
"Setting up my own business."
"Advertising and marketing."
"Shares."
"Accountancy."

Two Achievers chosen for interview were a little wary of the YE experience: "YE is too casual - nothing is dealt with in real proportions" (Sc.33, Low); "I would say it's more 'disturbed' my curiosity. It's emphasised points of production and getting on with each other, but it hasn't shown conflicts and sackings" (Sc.33, High).

When asked whether YE had highlighted differences between managers and employees, Achievers from Sc.1 found difficulty in answering, since they had had very little production to do, and because of the small number of Achievers, they were all considered to be managers. However, impressions were gained even here. "Employees think of wages and management thinks of profit" (Sc.1, High). Other Achievers from Scs.31 and 33, implied that there was a difference between managers and employees prevalent: "the managers have all the paperwork", "they do more thinking", "the managers have
all the hassle" (Sc.31, High).

Two problems were mentioned – "there is a difference, but it's not on the same scale" (Sc.33, Medium); "we're friends, but I found it difficult to be told what to do by someone who just sits around in the common room" (Sc.31, Medium), "the difference is that we appointed the Directors and therefore they have a responsibility to us, which may not be felt in big business" (Sc.33, High).

Achievers were divided when asked if a better relationship was created with the Advisers than teachers at school. The School 1 Achievers noted the formality of relationships with teachers, and the informality of dealing with Advisers. "We're on first name terms, because we're more involved" (Sc.1, High). The difference was shown to be, "Advisers are advising, teachers are teaching" (Sc.1, Medium). This was not the case with Achievers from Sc.31, who argued that they had good relationships with teachers because they'd known them longer (Sc.31, Low), and they "don't have much to do with the Advisers any way" (Sc.31, High). An Achiever in School 33 had noted astutely that the "good relationship with Advisers happens out of school with teachers too" (Sc.33, Medium), although several acknowledged, "it depends on personalities" (Sc.33, Low). Only one Achiever pinpointed the problem highlighted here – that of making Achievers aware that the onus is on them to create the relationship with the Advisers. "They've never really advised me, but I've never gone out of my way to ask" (Sc.33, High).

When asked about board meetings, the low scorers from School 31 had not attended one. In fact 20/45 Achievers had not attended a board meeting. A low scorer from School 33 remarked that he would not have learnt about other people's roles unless he had attended
the board meeting. The meetings were described as "boring", "formal", "useful" and "fruitful". More was recorded as being achieved at a board meeting than at school (Sc.31, High), but one Achiever's experience was hampered by the unreality of a board room situation, "I didn't take it seriously. It's a funny feeling sitting around a table - you're embarrassed and giggle - it's a bit unreal."

There appeared to be a social aspect to YE, which drew Achievers together as a social group in school time (Sc.1, High). In the beginning, some confessed to it being regarded as a social occasion (Sc.33, Low), "it's a chance to get together out of school" (Sc.1, Medium). The word 'fun' was used to describe the experience, and one Achiever mentioned "getting closer by working together" (Sc.33, Medium). There appeared to be a serious aspect, which developed as the work of each company proceeded.

Those who derived more ambition from YE appeared to be Achievers with managerial positions. Low scorers in Schools 31 and 33 were not affected, but higher scorers felt that "it's given me more ideas to discuss with other people" (Sc.33, High); "I'd thought of management, but thought I wasn't capable of getting there - I think I could be on the management side now" (Sc.1, High). Those who benefitted in this way from the Scheme appear to be those with no preconceived ambitions (page 176).

7/45 Achievers indicated that YE had changed their minds about courses to take after school. "It's broadened my horizons and narrowed them in some cases" (Sc.1, Medium); "it's challenged me to look at different types of accountancy" (Sc.1, High); "I'd think of doing Economic History" (Sc.31, High); "I'd be interested in doing
Business Studies" (Sc.33, Medium). Low scorers generally, had not changed their minds as a result of attending YE.

27/45 Achievers thought that YE helps you to learn more about yourself. Self-knowledge gained was thought to be:

"It's made me more exacting."

"I'm aware I can bring forward my own ideas and they'll be appreciated and listened to."

"I've had to deal with people more than ever before."

"It's given me more confidence."

"My time is valuable."

"I like using initiative, not menial tasks."

"It's showed up my weak and strong points."

"I don't like paperwork."

"You have to set yourself goals."

"I have made time for other people's ideas."

21/45 Achievers recorded that they thought their ability to make decisions had improved. "It's taught me the necessity to do things immediately" (Sc.33, Low).

Most Achievers said that they had gained respect for each other working as a team. 40/45 expected respect to be learnt for each other as a result of belonging to YE. Occasionally, respect was lost if someone did not pull their weight. Answers to this question indicate the value of teamwork, "we've all been mucking in together" (Sc.1, Medium).

43/45 Achievers agreed that YE gave a good insight into how a Company works, the various roles assumed by Board members, and how a Company ought to be run. However, in interview, they were careful to indicate where the experience fell short of reality: "it's too
casual" (Sc.33, Low); "it's somewhere between playing at it and being in industry" (Sc.33, Medium); "it's on a much smaller scale" (Sc.33, High). "If you're on the board it gives an accurate picture. If we'd formed a co-operative, where the workers take a more active role, it would have been better" (Sc.31, Low). "It can't be wholly accurate because we're all friends" (Sc.31, High); "I can't relate this to something outside" (Sc.33, Low). These comments reflect frustration with the limitations of experiential learning on a small scale.

3. Individuals' Views of Young Enterprise and Suggestions for Improvement

Staff and Advisers would have liked the scheme included as part of the school curriculum (page 189). Teacher B thought it "an unreal situation, superficial, not deep enough" and felt that pupils should work on a shop floor to appreciate the experience.

The teachers noted the effects of YE upon the pupils:-

"Most enjoy the scheme." (A)

"In one or two cases there has been a distinct change of character." (A)

"It begins to awake them to the fact that outside these institutions there is a different sort of world." (B)

"It can change their career outlooks, gives the opportunity for them to make mistakes and live with the consequences in a controlled environment, and to find skills in themselves that they did not know they had." (C)
Commenting on whether or not they thought YE to be a true simulation, Advisers A₁, A₂ and A₄ thought it the best simulation possible in the time available, providing pupils were committed. A business game at the end was a suggested improvement (A₁). However, it was felt that industry was not correctly portrayed in that:

- "A complete board set up before a product is decided is not how industry works." (A₆)
- "It encourages working as a team, but is not adventurous enough, and does not simulate industry." (A₆)
- "Lack of access to materials means it is geared towards the cottage industry." (A₇)
- "Directors cannot wield authority with their friends." (A₇)
- The paperwork expected of the Achiever is that of a large organisation. In a five or six man business, they would not find such a sophisticated system." (A₉)

To invoke improvements it was thought that the professionalism of the organisation should be bettered by changing the format of the examination paper, and by schools and industry working together, with extra backing coming from the Schools (A₁ and A₄). Personnel managers, those who deal with applications in industry, should be much more involved (A₁). A₂ required more support from YE nationally, and locally. The local co-ordinator's meeting, held for Advisers in the first weeks of the school year was thought to be "a waste of time" by A₃, who required much more information at that meeting. Advisers A₈ and A₉ thought a training session necessary,
since they had "no guidelines laid down on how far to let Achievers go before they realise their own mistakes". A_3 advised that Achievers should be presented with a number of products to choose from, to manufacture. A_6 also favoured certain parameters being laid down, "as the scheme is too vast, they have to think of a product out of nothing".

Another improvement suggested was that the scheme should not be so "low-tech". It did not appear to A_6 to be up-to-date, and he suggested recruitment of "young, modern industrialists as Advisers", since the scheme at present "does not bring out pressures or adventurous spirits". Generally, it was felt that the scheme could be made more arduous, with a certain amount of standardisation. A question asked of the author by an Adviser was, "are all YE groups run the same way?" This suggested to the author a need for feedback – a comparing of notes at County level leading to further improvement.

In Schools 31 and 33, the vast majority of Achievers were in favour of attempting YE again and would recommend the scheme to others. The low scorer in School 33 who did not wish to attempt the scheme again, qualified this in a later interview, stating that he would attempt it again if he were more dedicated and if others were also. In School 1, fifty percent of the Achievers were undecided about belonging to YE again, although 9/12 would have recommended it to others. However, Achievers described the scheme as:

"needing an initial interest",
"requiring a commitment",
"well worth the knowledge and experience", or
"fun".
4. The Administration and Role of Young Enterprise within the Broad Framework of the School Curriculum

The three staff associated with the YE companies were all involved in YE through different avenues. Teacher A was contacted by another teacher in a nearby school who wanted to begin the scheme in his school but could not find enough Achievers. Teacher B was encouraged to be involved, being asked to volunteer for specific duties as a sixth form tutor - the Head of Sixth having previously run the scheme in the school. Teacher C was delegated the responsibility after the Headteacher had begun YE two and a half years previously.

There appeared to be various routes to recruit Advisers. Initially Sc.1 approached Group Personnel at firm 'p' and then Personnel asked several people in the Company if they would be willing to become Advisers (A1). Every year the Advisers' names are then forwarded to School 1 at the beginning of term asking if it will take part. The Advisers have to ensure that the school has enough pupils to run the scheme (Teacher A).

Teacher B had no idea how the Advisers were chosen. He met them at the first company meeting and they "just turned up". They had been approached via the local Chamber of Commerce, the initial move having been made by the County Industry Education Liaison Officer (A4).

In the case of School 33, Teacher C approached the Works Manager of firm 's'. Once A6 had volunteered, he invited A7 to participate. Advisers A8 and A9 responded after a firm 't' circular requested local support, the Regional Director being a member of firm 't'. Teacher C's comments upon the availability of Advisers
was "it was who we could get rather than who we could choose". The Regional Director referred to the unavailability of Advisers at the County Presentation Evening (page 172).

Staff and Advisers were asked their views upon the effects of the scheme. Staff commented that it did not affect their teaching to a great extent since the meetings take place out of school. Teacher A was willing to give the scheme more attention if it were held in school time, as part of the curriculum. Teacher B thought that it was an opportunity to meet pupils who he would not otherwise meet, and on a less formal basis.

Advisers were not sure of the effects the scheme had on the schools. They thought it might be seen as a "morale booster" (A9), "something prestigious, being competitive" (A4) and thought that the schools must be aware of its existence, because of cheap products and services (A1). A9 referred to comments caused by circulation of an Advertising Sheet by School 33. A few staff, other than those directly involved, had attended Presentation Evenings over the last few years. The effect of YE on the school generally is further discussed in chapter 9.

Throughout interviewing, respondents had repeatedly referred to the extra-curricular aspect of YE. Many viewed this as a definite advantage, since it allowed informality, and commitment to development. However, Teachers and Advisers questioned its inherent value and thought it more beneficial to be part of the taught curriculum. Teacher A saw mini-companies which were developing within the County's schools as a first stage lower in the school, to YE in the sixth form, or possibly as part of the Technical & Vocational Education Initiative. Teacher C had already written a
syllabus including many of the YE ideas for a mini-company scheme as part of a City & Guilds 365 Course. The scheme's inclusion in the curriculum was thought advantageous because "someone from the school environment would have to go and find out how a business works and become a bit more involved" (A3). There were reservations to the idea, "provided it did not become too school orientated" (A2), and practical difficulties, "the Advisers would have to give up work time" (A4).

The Achievers were wary of the voluntary aspect of YE being lost if it became part of the taught curriculum. "The whole thing is self-motivation. There would be no time to fit it into the curriculum. After school you actually make the effort to come." (Sc.31, High). If YE were to be presented as an option subject, several Achievers thought it could be useful: "In the earlier years, before 'O' levels, there should be more lessons about industry. Young Enterprise could give you an idea of what you're coming into" (Sc.33, Medium). "It would be a subject to enjoy" (Sc.31, Low).

Pupils were asked how YE complements their school work, and whether they had been able to put into practice any of their theoretical knowledge previously gained. School 1 Achievers thought it complemented Economics, Mathematics and Decision-Making (a separate subject). They had put into practice aspects of market research and costing, and had seen the need for co-operation whilst working as a team. One Achiever (Sc.1, High), looked upon YE as a relaxing diversion from involvement with academic subjects, and simply a means of social interaction.

Achievers of School 31 saw little comparison between YE and
their school subjects. "I suppose Psychology could be linked to management, but it isn't" (Sc.31, Low). Accountancy was linked with Mathematics, but only by those involved with the financial aspects of the Company's work. One Achiever (Sc.31, Low), felt that learning about relationships and working together, was an advantage of YE and complemented the 'hidden curriculum', a feeling which teachers conveyed - that of the necessity of working together as a team. It also helped this Achiever "to understand other subjects like History - for example, relationships between management and workers".

Some School 33 Achievers were able to link YE to the curriculum in a more definite way, since they saw it as complementing part of their Social Education Course. However, whilst they saw a similarity, they also recognised a lack of unity as far as the curriculum was concerned:

"It complements our Social Education, and Understanding Industry, but they don't really work together. They should work in conjunction with one another." (Sc.33, High).

It is to Understanding Industry that the next chapter refers.
CHAPETR SEVETE

THE MACRO APPROACH - UNDERSTANDING INDUSTRY

CHOICE OF SCHOOLS

With the exception of the two schools below, several schools in the County which had taken part in Understanding Industry initially, had introduced a 'Do-It-Yourself' scheme, where the teachers, rather than the Regional Organiser, had responsibility for contacting speakers. "Although Understanding Industry had been outstanding in County X, it went out of control, having a number of indifferent sessions" (Wood, 1984, telephone conversation with the author). One reason which Wood gives for this was a "misunderstanding of what education required". The Regional Organiser noted that a few schools were so badly organised that the scheme was difficult to administer internally, and in one instance, a sexist criticism of the scheme had caused it to cease (interview with Regional Organiser, 20/8/84). The choice of the schools was therefore restricted to Schools 11 and 33. There were several contrasts between them:-

- School 33 was the only school in the County to use the course materials. School 11 used no materials.
- School 33 involved top band fifth form pupils. School 11 involved sixth formers.
- School 33 gave its pupils a choice between Social Education or Understanding Industry. In School 11, it was compulsory to take the course as part of the sixth form General Studies.
- School 11 held two UI courses in one school year, one in each
of the first two terms, timetabled weekly, to finish before Easter. School 33 held sessions fortnightly, interspersed with follow-up work in Social Education.

. The person co-ordinating the scheme in School 33 was the Headteacher (Y). The member of staff (X), co-ordinating the scheme for School 11 taught History and Physical Education.

. Headteacher (Y) was on the National Consultative Committee for Understanding Industry. Staff (X) was participating for the first time.

Details of School 33 are found on page 168, as it was also used for a study of Young Enterprise. School 11 opened in September 1980, after an amalgamation of two schools, as a 1,100-pupil co-educational Comprehensive. "Life in the Sixth" was described in the 1980 School Prospectus as including "lectures and seminar discussions on various topics of general interest". UI formed part of this, although it was not specified in the Prospectus.

Both Headteachers agreed that the research could be conducted in their schools.

Fig.7.1 Schools Chosen for a Study of Understanding Industry

<table>
<thead>
<tr>
<th>SCHOOL NUMBER</th>
<th>AGE RANGE OF PUPILS</th>
<th>NUMBER OF PUPILS INVOLVED</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>11-18</td>
<td>30</td>
</tr>
<tr>
<td>33</td>
<td>11-16</td>
<td>32</td>
</tr>
</tbody>
</table>
THE CHRONOLOGICAL SEQUENCING OF EVENTS IN EACH SCHOOL

The Author's Account of Understanding Industry in School 33

(Using data from the diary, interviews and pupil evaluation sheets.)

Fig.7.2 Fortnightly Visits to Understanding Industry in School 33

<table>
<thead>
<tr>
<th>DATE</th>
<th>SPEAKER</th>
<th>FIRM</th>
<th>TOPIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.09.84</td>
<td>E</td>
<td>g</td>
<td>Introduction</td>
</tr>
<tr>
<td>04.10.84</td>
<td>K*</td>
<td>k</td>
<td>Finance</td>
</tr>
<tr>
<td>18.10.84</td>
<td>D2</td>
<td>d2</td>
<td>Marketing</td>
</tr>
<tr>
<td>08.11.84</td>
<td>G</td>
<td>g</td>
<td>Design/Technology</td>
</tr>
<tr>
<td>21.11.84</td>
<td>F</td>
<td>f</td>
<td>Human Relations</td>
</tr>
<tr>
<td>06.12.84</td>
<td>H</td>
<td>h</td>
<td>Manufacture &amp; Production</td>
</tr>
<tr>
<td>17.01.85</td>
<td>J</td>
<td>j</td>
<td>Management</td>
</tr>
<tr>
<td>14.02.85</td>
<td>D2,E,F</td>
<td>d2,g,f</td>
<td>Summary-Brains Trust</td>
</tr>
</tbody>
</table>

*Also listed as a speaker in School 11.

The author was not invited to the introductory session. To compensate for this fact, speaker E was interviewed later. None of the sessions were cancelled, the reason possibly being that organisation was more in the hands of Headteacher Y than the Regional Organiser, who resigned her duties after Christmas 1984. This was not entirely a 'Do-It-Yourself' approach, since contact was maintained with the Regional Organiser until her departure. However, the Advisory Teacher's evaluative report on industry/education liaison in the school (1983) noted that the scheme was basically self-supporting.

During recording of the session on 4.10.84, data naturally fell into four categories, which provided a format for future recording:

1. Organisation and role of staff member.
2. Presentation - subject matter; teaching style.
3. Pupil reaction.
Staff and/or speaker comments.

Organisation and Role of the Staff Member

The Headteacher Y met guest speakers in his office beforehand and arranged for necessary equipment to be provided in the classroom. Technicians were seen to place projectors in place in plenty of time for a session. Every session, except K's, was held in the school library, where the librarian made tea for the speaker after the talk. The lesson time had been extended for ten minutes to give more time for UI. The library situation was not ideal because of the amount of noise and movement which occurred at afternoon registration time for the rest of the school. Y was able to provide support for speakers, working the projector in K's session, giving out UI booklets, asking if paper was required for note-taking, introducing and summarising talks, encouraging pupils to ask questions and assisting with group work. The arrangement of desks was mostly formal - sometimes they were arranged in a semicircle at the Headteacher's instigation.

Presentation - Subject Matter

During the course, pupils were told of financial terms, balance sheets, demand, costs, market 'types', market profiles, signals, automated assembly procedures, the importance of people, aspects of personnel work and industrial relations, the work of a production manager, the definition of management, and how to manage a chicken business. The Brains Trust provided an opportunity for pupils to ask questions on subjects such as unemployment, redundancy, the European Economic Community, trade unionism, mechanisation,
nationalisation and the role of women. The questions were prepared before hand, in one of the lessons following an UI session. The Headteacher used these as follow-up lessons, reinforcing work done during the course, and organising a visit to a power station.

Presentation - Teaching Style

To convey information, speakers differed in their presentations, from speaker H, who began with "Hello, boys and girls" and had minimal pupil involvement, to Speaker J, who encouraged group work with each group managing a chicken business. A film was shown by K, whilst several small exercises were used by D2, to illustrate the marketing of gas cookers. K and G involved the whole class in an attempt to solve problems, but did not encourage group work. Speaker H showed a lack of confidence, standing with his back to the wall, unable to meet the eyes of individuals. G mumbled, and was not easily understood, while F had a booming, monotonous voice. Several sexist comments were made by H:-

"Some of you lads may have seen it under a bonnet."

"The girls in the office."

"Young men like yourselves."

D2 used his sense of humour, and very up-to-date illustrations to put over Marketing.

Pupil Reaction

The pupils reacted well to youth, humour and participation. D2 gained the most enthusiastic response from the pupils, who responded well to his jokes. K's film presented by the 'Two Ronnies' was well
received - the pupils showing great interest. G evoked boredom, losing most of the class attention but holding the attention of six pupils who constantly questioned him on signal boxes and trains in tunnels. F's talk caused fidgeting and looks of boredom from half the class, his age (past retirement) and monotonous voice perhaps contributing to this. He was responded to politely, but it was mostly sympathetic contact, for the pupils spent more time talking to each other than listening. J involved the pupils more, and involvement was noisy and responsive.

**Individual Session Analysis (Fig.7.3)**

From the pupil evaluation sheets it can be noted that attendance was low on occasions. Apparently, non-examinable subjects are not well attended in the school. (Teacher 3, Appendix 29). The first two sessions, Finance and Marketing, appeared to please the pupils most. All agreed that the information was clearly given and well presented. The sessions' usefulness were also marked. After these two sessions, responses varied - a negative element appeared. It appears that such a reaction caused some to be absent in the remaining weeks of the course. The negative responses to Speaker J may be explained by the pupils' unfamiliarity with experiential learning, since most reacted favourably.
### Fig. 7.3 Individual Session Analysis: Understanding Industry, School No. 33

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>How Clear?</td>
<td>++</td>
<td>+++</td>
<td>++</td>
<td>++</td>
<td>++</td>
<td>++</td>
</tr>
<tr>
<td>Was the Information Given?</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>How Well Was the Information Presented?</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>How Useful Was the Session to You?</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>No. of Pupils Present</td>
<td>22</td>
<td>14</td>
<td>30</td>
<td>214</td>
<td>116</td>
<td>10</td>
</tr>
</tbody>
</table>

Key: 1 Square = 1 Response
Staff and/or Speaker Comments

K expressed pleasure in the way that the UI course was arranged in School 33. The reason he felt it was successful was because Headteacher Y had an active role and perhaps a little more time and credibility than the "frustrated, overworked classroom teacher". (Interview with K.) This supports the thinking of the author (pages 200-201). The enthusiasm of the pupils was remarked upon by D₂, which may in part be due to the follow-up work done by Y with the pupils in intervening weeks.

The UI written material aroused interest with the Speakers. Y expressed his opinion that the new booklets were too academic for fifth formers, an opinion supported by Speaker J, who said "the new booklet is at a higher level unfortunately". At a meeting with the Director of Understanding Industry (at Bath University, 12.11.84), he acknowledged that the new books are "a money-making venture, designed for undergraduates". New experiential teaching materials are now being produced by UI.

The Author's Account of Understanding Industry in School 11
(Using data from the diary, interviews and pupil evaluation sheets.)

Fig. 7.4 Weekly Visits to Understanding Industry in School 11

<table>
<thead>
<tr>
<th>DATE</th>
<th>SPEAKER</th>
<th>FIRM</th>
<th>TOPIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>29.01.85</td>
<td>Senior Mistress</td>
<td>-</td>
<td>Introduction         (cancelled)</td>
</tr>
<tr>
<td>05.02.85</td>
<td>K*</td>
<td>K</td>
<td>Finance              (cancelled)</td>
</tr>
<tr>
<td>12.02.85</td>
<td>B,C</td>
<td>b,c</td>
<td>Production           (cancelled)</td>
</tr>
<tr>
<td>26.02.85</td>
<td>D₁</td>
<td>d₁</td>
<td>Human Relations      (cancelled)</td>
</tr>
<tr>
<td>05.03.85</td>
<td>A</td>
<td>a</td>
<td>Technology</td>
</tr>
<tr>
<td>12.03.85</td>
<td>B</td>
<td>b</td>
<td>Marketing</td>
</tr>
<tr>
<td>19.03.85</td>
<td>C</td>
<td>c</td>
<td>Management</td>
</tr>
</tbody>
</table>

*K also spoke at School 33.
The Introductory Session for the course was cancelled. The Senior Mistress took a lesson unrelated to UI. On 5th February, the speaker invited to lunch beforehand did not arrive, and the Session was again cancelled. Staff X expressed disillusion with the course at this stage, suggesting that four staff were needed to organise the scheme in School 11, to make the booking, to sit in on a session (which Staff X was unable to do), to make coffee and to co-ordinate within sixth form General Studies. The following week, the speaker telephoned a day previously and said he had too much paperwork, following a trip abroad. He was unable to provide a replacement speaker. The school organised another impromptu lesson taught by the Senior Mistress. On 26th February, the speaker also cancelled, but the situation was further confused by teachers' action on that day. The author decided to interview this speaker to investigate reasons for cancelling, which were reported to be:

"a lack of personal contact through the Regional Organiser."

and

"difficulty with work time within the firm." \( (D_1) \).

The cancellations could be explained in part by the resignation of the Regional Organiser after Christmas, which meant that although she had booked the speakers previously, the staff member X had the responsibility of confirming those bookings beforehand. Also X was not directly involved with UI, having to teach at the same time as the timetabled sessions.

For the remaining three sessions the author recorded notes under headings devised earlier whilst recording in School 33 in October. These were:-

200
The Organisation of Understanding Industry and Role of the Staff Member

For each of the sessions, the staff member present was a different individual, firstly a member of staff who was new to the school (5.3.85), then the Senior Mistress (12.3.85) and then the Headmaster (19.3.85). Speaker A was a parent, his daughter was in the group, Speaker B had visited the school on several occasions and Speaker C had been contacted at the last moment, but was a frequent visitor to the school. The staff members introduced the speakers. The new staff member's introduction was not helpful: "I have no idea what he is going to talk about, let's hope he has." The Senior Mistress gave an informed introduction, having met the Speaker B on several occasions, and the Headteacher introduced the third speaker who he knew very well. The staff provided practical support, such as controlling lights and blinds, and asking relevant questions, although the room was not suitably organised beforehand on any occasion. It was noticeable that the boys sat on one side of the room and the girls on the other. The desks were not arranged formally, and pupils perched on these, rather than on chairs.

Presentation - Subject Matter

Speakers A and C gave career summaries. A gave types of communications examples, technical information concerning discs and
megabytes, communications systems in firm a, and details of future developments. b defined marketing, and the marketing cycle, and described product testing, developing, packaging, finance, advertising, public relations, promotions, sales and distribution. he also gave a background to his firm's (b's) products. c defined management and related this to the hierarchical system of a school as an illustration. he then dealt with the qualities of being a manager, power, authority and industrial relations.

presentation - teaching style

the teaching styles were different in every case. a referred to his notes frequently, gave some specimens of communications systems and presented slides. poor black-out facilities hampered his talk, and he left little time for questions. b used slides and also flip charts to illustrate his presentation. he had a clear, commanding voice and constantly questioned the pupils. c provided food for thought, making statement such as "ultimate power corrupts", "authority is gained by consent". he used notes and sat on a desk to address the pupils. after a lengthy introduction, he provided the pupils with self-analysis sheets, a test for managers and a training exercise for managers. the pupils participated well, but the full value of the exercises was lost because of limited time.

pupil reaction

in response to speaker a, one person went to sleep, several quipped in the background, and chatted amongst themselves. this does not reflect the several questions which a few interested pupils
interjected as the speaker talked. However, pupil reaction to B was more favourable. His enthusiasm and dry humour was well received and attention was held throughout. During the third session, the pupils enthused over the exercises given. Pupil reaction is further revealed from the Pupil Evaluation Sheets (Appendix 13b) and the Individual Session Analysis according to pupils (Fig.7.5)

Individual Session Analysis

The session on Marketing proved to be the most well received. The speaker B had more visual aids and related his subject matter to the pupils' own experience, using 'shampoo' as an illustration for marketing procedures. There were no negative recordings for the session on Technology or Marketing as far as clarity of information was concerned, but in the case of Technology, the pupils did not consider, in ten cases, that the information was useful. The session on Management provided more mixed reactions, although the majority of pupils responded favourably.

The attendance figures for each session, are lower than the total number of pupils expected to be present. There were new faces every week, which perhaps shows the attitude of pupils towards the General Studies Course.
### Fig.7.5 Individual Session Analysis: Understanding Industry, School No.11

<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>How Clear</td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WAS THE</td>
<td>+</td>
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<tr>
<td>INFORMATION</td>
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<tr>
<td>GIVEN?</td>
<td>-</td>
<td></td>
<td></td>
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<tr>
<td>How Well</td>
<td>+</td>
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<td>WAS THE</td>
<td>+</td>
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</tr>
<tr>
<td>PRESENTED?</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How Useful</td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WAS THE</td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INFORMATION</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>TO YOU?</td>
<td>-</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| No. Of Pupils at Each Session | 17 | 16 | 15 |

Key: 1 Square = 1 Response
Staff and/or Speaker Comments

In School 11, there was no organised opportunity to talk to the Speakers afterwards. However, when the author approached them afterwards, the following comments were made:-

"Speaker B has altered his presentation to be more effective." (Senior Mistress)

"The scheme is poorly organised from within the school. There should be follow-up." (Speaker C)

All speakers were interviewed at a later date, giving more time for comments.

In answer to a question posed to the panel at the Brains Trust in School 33:

"In your opinion, how do people benefit from this course?"

$D_2$ answered:

"Really, we should be asking you."

This echoes the author's thinking, and therefore the participants' responses are discussed in the next section. The following figure (Fig.7.6) shows how the data collected from various sources relates to the lines of enquiry:
Fig. 7.6 Headings for Analysis of Data, and Acknowledgment of Data Sources: Chapter 7

1. The Interpretation of the Aims of the Agency by the Individuals Involved

**Data source:**
- Staff Interviews: Q. 4
- Speakers' Interviews: Q. 2
- Pupil Frequency Distribution: Qs. 2, 5, 12, 13, 14, 21, 22, 23, 25, 29, 34
- Pupil Interviews: Qs. 2, 5, 6, 25

2. The Experience of Participants over the Length of the Course

**Data source:**
- Staff Interviews: Qs. 1, 3, 5, 6, 9, 10, 11
- Speakers' Interviews: Qs. 1, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13
- Pupil Frequency Distribution: Qs. 3, 4, 15, 16, 17, 26, 27, 28
- Pupil Interviews: Qs. 1, 3, 7, 8, 9, 10, 11, 12, 13, 15, 16

3. Individuals' Views of the Agency and Suggestions for Improvement

**Data source:**
- Staff Interviews: Q. 7
- Speakers' Interviews: Q. 13, 14
- Pupil Frequency Distribution: Qs. 6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 17, 19, 20, 30, 31, 32, 33, 35
- Pupil Interviews: Qs. 14, 17, 18, 19, 20, 21, 22, 23, 26, 27

Interviews with Headteachers
- the Director of Understanding Industry
- the Regional Co-ordinator

4. The Administration and Role of the Agency within the Broad Framework of the School Curriculum

**Data source:**
- Staff Interviews: Qs. 2, 8
- Speakers' Interviews: Q. 11
- Pupil Frequency Distribution: Qs. 11, 24
- Pupil Interviews: Q. 24

Any questions omitted from this framework, form the basis of information for the author's description of the agency within the schools (pages 194 and 199).
1. Interpretation of the Aims of the Agency by the Individuals Involved

Staff Y interpreted the aims of UI to be "an opportunity to meet the new, different practitioner, the person on the job". This personal contact was also highlighted by Speaker F, who saw UI as a vehicle "to give an opportunity for people in industry and commerce to make contacts within the educational side." His main aim was "to convey that I enjoy what I'm doing" to pupils, "enabling young people to discover that industrial and commercial people are not a race apart, and they are the type of people the pupils would expect to meet once working." Speaker C also thought that meeting industrialists was vitally important. Other speakers, and staff X, interpreted UI's aims as a means of imparting new knowledge:

"to appreciate what goes on in various disciplines." (X).

"to provide a greater understanding of industry and its needs." (C).

"to acquaint youngsters with the way in which industry and commerce operates and how it contributes to the life of the nation." (E).

Several speakers stressed the necessity of a course such as UI at school-leaving age:

"to give some idea of what they are likely to meet when they leave school." (A).

"to give an interest, to find out a fuller spectrum, before getting into a work situation." (D₁).

Some of these interpretations tended to be very broad, for D₁ also sees UI giving knowledge "of all forms of work". D₂
interpreted its aims as being "to give the idea of different types of work within any one company". This can only be by implication, for the speakers came from different firms. Speaker E explained a long-term, secondary aim as being "to help my firm with employment".

When asked why they joined UI, the pupils in School 11 were more negative because they were told to attend. None of these pupils indicated that they had joined to learn more about industry and commerce, whereas 19/22 pupils in School 33 had done so. They therefore began the course with a far more positive outlook, because it was an option. The title "Understanding Industry" attracted one pupil (Sc.11, Low) but when asked what they expected School 11 pupils were again negative:

"I thought it would be dead boring." (Low).

"I expected the sessions to be figures based. Half were U.K." (Medium).

16/21 expected it to open their eyes to the technical aspects of industry and commerce (Sc.11). School 33 pupils' reasons for joining were linked with what they were opting away from:

"It would be more interesting than Social Education. At least this gives you a certificate." (Low).

"I thought it would be better than Social Education which is a waste of time." (Medium).

A high scorer, when interviewed, gave a positive reason for opting to do the course:

"To get as much knowledge as I could about work."

Pupils' expectations were higher generally in School 33. 18/22 thought UI would help with future career prospects, compared with only 10/21 in School 11. A large element in both schools expected
it to make them more aware of career prospects, [13/21 (Sc.11) and 15/22 (Sc.33)], but only 5/21 in School 11 thought UI could heighten ambition. This perhaps suggests that by the sixth form stage most pupils have narrowed down their subject choices and begun to follow a career path. Many have established ambitions at an earlier age. Hence, one pupil at interview could state categorically, "I'm more in the Art line" (Sc.11, Medium). The emphasis on external examinations was pointed out by one pupil, who thought that UI was hardly likely to help career prospects, since "employers look more at 'O' and 'A' levels" (Sc.33, Low). The UI certificate (which pupils in School 11 did not know existed) was considered to be an indication of a pupil's interest, but little more.

"The ones who have worked hard are going to get a certificate the same as me and that's not fair. You still have to get exams to apply for a job." (Sc.33, Low).

Nevertheless, 15/21 (Sc.11) and 13/22 (Sc.33) expected employers to be impressed with an UI certificate.

When asked if there was any point in taking the UI course, seven pupils from School 11 thought not, and five were undecided. Half the group therefore, were unable to see any aim fulfilled. 9/22 from School 33 thought likewise, although some of the sessions were thought worthwhile (Sc.33, High). Paradoxically, pupils interviewed from School 11, when questioned gave their interpretations of some of the aims:

"Some of the science people would not have thought of going into industry otherwise." (Sc.11, Medium).

"There is a point for some, who want to go into
Management." (Sc.11, Medium).

"It widens your outlook and makes you more aware of
industry as a whole." (Sc.11, High).

2. The Experience of Participants over the Length of the Course

Staff

Member of staff X (Sc.11) became interested in the scheme through the General Studies course which he was asked to direct. The Headteacher in School 11 was keen for UI to continue. Y (Sc.33) was invited as a Headteacher to the initial, introductory meeting of UI in the County, when Mr. Gerry Richardson, who began the scheme (page 91) gave a presentation. His interest grew from there. X saw his role as "a provider of information, liaising between Speakers and the General Studies organisation", whilst Y, by implication, saw his role as the course organiser within School 33. X needed advice in taking over his role, whilst Y had performed his role for a number of years. Both staff summarised their problems in 1983-4, as involving speakers. "Contact was difficult" (X), and "some speakers were better than others" (Y). X hoped that UI would affect the pupils by giving them a taste of jobs in industry, but was unable to comment on whether pupils had benefitted or not, since, "in my role, I don't see them." Y was confident that all pupils had benefitted from the course, having met speakers who "demonstrate something by their bearing and manner."

Speakers

Speakers were either contacted through 3I's Consultants (page 91), and/or through the Regional Organiser. In one instance, a
Occasionally there were direct benefits to the speakers' companies. F mentioned that a pupil had arrived at his company, and recognised him as a speaker for UI. Mostly, speakers felt that the direct benefits were few:

"I've made an offer for them to come and see us if they're interested, but nobody has." (B).

D2 saw one of the benefits as being able to advertise the firm's product, whilst E felt that although he could make pupils aware of employment prospects with his company, UI did not allow sufficient personal contact to get to know pupils. Where there was a fixed relationship with the school prior to UI, Speaker C felt that the scheme strengthened his firm's relationship with the school. D1 presented a rather disillusioned view:

"It's lowered expectations. At the beginning we felt it would be an ideal opportunity to influence the schools into what industry would be requiring, but - the back-up from teachers is not there."

These statements perhaps point to underlying problems with the scheme, those of misunderstandings between industry and education as to its purpose.

Speakers answered the question "Is the material you are asked to present closely related to your own experience?" with apparent honesty. F felt that "one can outwear one's own suitability." B remembered that the briefing from an UI meeting with the Regional Organiser in a previous year had resulted in a decision to use his own experience rather than relying upon the textbook. D2 felt that he "cut down everything so much that I'm not really sure I've
covered the whole subject." Speakers, however, seemed to approach a talk differently, one presenting the work he had been involved in during his career (A), whilst others used their careers as a base, building upon the topic they are to present (C, D₁).

B noted that there was no practical advice given at the briefing, beyond the encouragement to ground it as much as possible within basic experience. Four of the seven speakers had attended these meetings, usually held at the school, with all speakers for the course, the staff co-ordinator and the Regional Organiser. Three of the speakers had other involvement with industry-education work, but the remaining speakers had no previous experience of talking to school pupils.

All the speakers remarked on the long, initial amount of preparation time required to present a talk. Most then amended and updated their notes, although B evaluated his presentation method regularly, and C prepared printed matter for pupil involvement for every session he took.

The role played by speakers was not always regarded as an easy one. B felt that "in some ways the pupils are a difficult audience. I have sometimes felt I've been missing the target." E acknowledged his lack of teaching experience in presenting the introduction to the course, finding the groups large, and F recalled meetings with a previous Regional Organiser, where speakers could help each other. Few of the speakers, A, C, D₁ and D₂, said that their role was an easy one, since they enjoyed talking to young people, and found it stimulating.

With the exception of A, all speakers required advice or information about their presentation. B regarded the problem of
conveying experience of industry to someone younger, who may never experience it, as particularly daunting, rather like "introducing Africa to snow". He needed information concerning the size of the group, whether the pupils were studying for 'O' or 'A' levels, and whether they had a background of Economics work. C required meetings at the school again, for pre-discussion. D was unaware of the depth needed, and wanted to know the pupils' ability level. E would have appreciated "seasoned help", the "liaison people" he called "elusive".

UI had helped E gain a better understanding of school pupils. D was consoled that "they were not carrying a great weight of discontent, brought about by national unemployment". Impressions of young people were positive, and had changed as a result of speaking at UI sessions:

"The ones with personality still stood out." (D).

"Youngsters are not as bad as the newspapers paint them." (F)

B noted a difference between pupils in state schools who had the attitude "we've got to go to these lessons" and pupils in public schools, where "pupils understand the purpose of attending". To a certain extent a similar disparity was shown between School 33, where pupils opted to attend, and School 11, where attendance was compulsory.

Speakers were asked for their perceptions of the groups they were addressing, and how they compared with previous groups. The consensus for School 11 was that the group was more intelligent, more academic, and more interested, which according to C was due to their being influenced by unemployment. "They realise they have to
obtain information about the outside world." C perceived that education is far more receptive through such schemes as UI, to the political and economic situation in Great Britain. School 33 pupils were described by E as "better than most".

Had speakers' perceptions of education changed as a result of UI? Teachers who were outward-looking were impressive, according to E, but A suggested that teachers should go on work experience, as they "do not appreciate what goes on in industry". D found herself recommending certain schools and not others depending on the "feel" of the school, and C compared state and public schools - "in private schools, thirty hands will shoot up. In state schools, one hand goes up in isolation".

UI did not increase ambition, according to the majority of pupils in the two schools. Only one pupil interviewed (Sc.33, Medium), felt ambition had increased and this because there was already a basic interest in marketing. Ambitions and careers had been decided by most pupils beforehand although one pupil (Sc.33, High) decided to do laboratory work as a result of attending UI sessions. Another pupil (Sc.11, Medium), said that it had helped to realise more possibilities are available in industry with Art.

9/21 pupils in School 11, and 6/22 in School 33 indicated that industry and commerce are more interesting when studied in depth. Several in School 11 indicated rightly that they had seen so little of the course that they could not comment on the depth of the course's components. The low scorers on the attitude scale responded negatively as to whether or not their desire to learn more about industry and commerce had increased, in fact (Sc.33, Low) said it had decreased his interest.
Nevertheless, ideas about the world of work had changed in some instances:

"It's very wide ranging." (Sc.11, Medium).

"I think there's a lot more to industry now." (Sc.33, Medium).

"My ideas of industry and commerce have changed for the better. I thought it was all about managers. I didn't think of the shop floor." (Sc.33, High).

When asked what picture was painted of the world of work, pupils responded:

"One speaker spoke about the gates of his work." (Sc.33, Low).

"Answering telephones." (Sc.11, Medium).

"The beginning of the product to the selling of it. I have a deeper perspective now." (Sc.33, Medium).

"A structured environment." (Sc.11, Medium).

"Managers and workers." (Sc.33, High).

Seven of the pupils in the two schools thought that the picture painted was of "dirty shop floors". 7/22 pupils in School 33 thought industry too technical an environment. On several occasions, the word boring was used to describe aspects of the course. Pupils clearly indicated that they did not feel that industry and commerce was dull and boring, but that in some cases, presentation of subject matter was.

"The course is, but I know industry isn't, depending on the job." (Sc.11, Low).

A pupil with a scientific interest noted that "the more technical sides were quite interesting". (Sc.11, High).
Those interviewed in both schools were quick to indicate that industry and commerce were not all about strikes - "striking is supplementary, and is an impression enlarged by the media". (Sc.11, Medium). Nine pupils in School 11 thought industry and commerce to be a political battlefield, likewise 7/22 in School 33. This was not an impression conveyed by UI however, according to those interviewed. "Politics have not been brought in to the course." (Sc.33, Low). "We barely mentioned nationalised industries." (Sc.33, Medium). One pupil (Sc.11, Medium) had gained the impression that industry was "conservative", but he could not say whether this was an idea gained before the course, or as a result of attending it. It should be noted that UI did not alter this impression. One low scorer (Sc.33) remarked that UI gave the impression of industry being about office work, but this was not a perception shared by the majority.

3. Individuals' Views of the Agency and Suggestions for Improvement

Member of staff X thought that UI was very one-sided, with no-one presenting their experience of the shop-floor. The Headteacher of School 11 noted that the criticism levelled at the scheme was that "it was too right wing". A pupil commented on his evaluation sheet that "talks from an actual labourer would have been interesting". (Sc.33). Another said that it would be interesting to hear from new company members entering industry for the first time. A criticism of the course was levelled at the role of speakers. "The speakers were in general, here as public relations for their companies". This of course is a difficult problem to
overcome, since speakers were encouraged to convey their own career experience, which of necessity included mention of their companies.

The organisation of the course could be improved, according to speakers D₁ and C. Since UI had a lot of cancellations, "a pool of committed reserves would help". (D₁). The whole organisation within the school should be tightened up, with the school knowing something of the speakers coming in, according to D₁. This speaker also highlighted the need for an idea of what other speakers are doing. B supported this, "I felt in isolation. We need to meet other speakers." The general consensus was that meeting with others to develop a degree of continuity was needed. A pupil from School 33 commented, "there is more connection needed between different aspects of the course". C felt that it was necessary to co-ordinate the scheme with others, since "Understanding Industry is but a single facet of school-industry work". D₂ was concerned about colleagues in industry who would benefit from involvement in UI and suggested that the scheme be advertised widely.

The pupils and speakers were in agreement over the need to see industry in action. A comment made on an evaluation sheet was "we could at least visit some of these places". D₂ and A requested a follow-up with work experience, or visits, to give a practical idea of work.

Most comments relating to the improvement of UI, concerned the standard of presentation, which Y classed as "disappointing on some occasions". Half the total number of pupils in the two schools agreed that the speakers did not project themselves well. Pupils (Sc.33) complained "they lectured at us", "they talked at us, not with us". In School 11 all pupils agreed that speakers should be
able to relate to them, but when interviewed, one said "they all seemed very distant to me". (Sc.11, Medium). The Regional Organiser claimed that the course could be further improved if it were personalised at every encounter. A pupil from School 33 (Medium), was aware of the problems which some speakers had:

"It's not their job to talk to children. It's quite a task to take on and they coped with it as well as you would expect."

However, 15/21 pupils in School 11 felt that speakers should be trained. This was not unanimous, for one person interviewed (Sc.33, High) suggested that "we want to know their experiences. It's someone else speaking for them if they are trained." The Director of UI, in conversation with the author, said that the second phase of the scheme would involve training speakers, and encouraging them to work in a participative way. Pupils wanted to be more involved:

"The more interesting ones were those which involved us, instead of being lectured to. I paid more attention to a speaker who brought things with him."

(Pupil Evaluation Sheet).

"If we'd had a more active part, we'd have listened more." (Sc.11, Low).

Even the opportunity to take notes would have been an improvement for some pupils. "It would have made it stick." (Sc.33, Medium). A few, 11/21 (Sc.11) and 5/22 (Sc.33), thought some back-up work was necessary, and a few pupils, 3/21 (Sc.11) and 9/22 (Sc.33), would have liked an examination at the end of the course, as "there was nothing to work up to, so there was no incentive". (Pupil Evaluation Sheet comment). Another viewpoint
was held by a pupil interviewed from School 33 (Medium) - "the course has given me a sense of maturity, they're treating us like adults. Sitting an examination would have made it like a school subject."

The course booklets, used in School 33 as reading matter for pupils after a session, needed to be used in a more supportive way (E). Pupils felt also, that the booklets could have been used in the lessons (Sc.33, Low). The speakers commented on the course materials whilst the sessions were progressing (page 199).

Generally, pupils requested more female speakers, for the scheme was seen to be "male dominated", yet it was accepted that Industry "is that way" (Sc.33, Medium). Feelings were divided over whether fifth or sixth form level was a good time to take the course; some pupils thought they might take it more seriously when twenty-one (Sc.33, Low), but a high scorer (Sc.33) thought the time right at present, because of choosing a career at the end of schooling.

Only four pupils out of twenty-one in School 11 would recommend the course to anyone. Thirteen out of twenty-two in School 33 definitely would not recommend it, and these findings were supported by interviewees' comments. Because of poor organisation, in School 11, pupils acknowledged their negative feelings and felt it could be a good course if properly organised. Pupils in School 33 perceived it was very similar to Social Education, which seemed to colour their view of it. Primarily, if recommending the course, the pupils would tell others that they need an initial interest to benefit from it. "If people were genuinely interested, I'd recommend it." (Sc.33, Medium). In a positive vein, various comments were also
made on the individual Evaluation Sheets. An example is:

"It helped me understand different aspects of industry and cleared up some big question marks."

"I certainly know things now, I didn't know before."

4. The Administration and Role of the Agency within the Broad Framework of the School Curriculum

The staff involved were asked whether UI affected their teaching role. X found it was a time-consuming activity, which he did not relate to his teaching at all. Y, on the other hand, said it added another dimension to his interest, and led on to beginning Young Enterprise in the school. It had some bearing on the content of the whole Social Education programme and upon some in-service training undertaken. The content of the course had affected his presentation of 'O' level History, and his secondment for a time in industry had arisen out of his active association with UI.

Could UI become a more integrated part of the curriculum? Neither teacher saw this being easy. X would dilute it and simply use speakers with a long-term relationship with the school, whilst Y saw no inroad into the curriculum, other than as part of Social Education.

Several speakers noted the lack of time given to the scheme which "is not conducive to total communication of the subject". (C). F felt that UI should be a more serious curriculum subject, but failed to see how this could be "if existing curricula and terminal examinations exist". D\textsuperscript{1} noted a problem with the scheme:

"It is a fringe subject - a session filler."

Pupils were asked if they felt that any school work
complemented UI. There was a link between Commerce, Economics and UI in School 11. In School 33, the pupils linked the scheme with Industry Awareness (part of Social Education), "but there was no importance put on it last year" (Sc.33, Low), and with YE - "it's helped with Young Enterprise, it's helped me to see what I should be doing in my role". (Sc.33, High).

When asked whether the scheme influenced the rest of the school, speakers commented that the scheme was being overtaken by other developments, such as TVEI, in the school-industry field. (E). A saw the scheme confined by one particular teacher, and D remarked that follow-up was needed, since a one-hour session is purely theoretical. The speaker F remarked that he was unaware of the teacher's other commitments and thus could not comment.

The Consequential Aspect

From these findings, it must be agreed that individuals participating in the scheme are not always the best to comment on a scheme's influence upon other parts of the curriculum. Thus, it was seen to be necessary to investigate one school in depth - enquiring of all staff their observed impressions of the schemes studied, and the extent of influence upon their own departments and teaching.
In order to place agencies in the wider context of the whole curriculum, but limiting the context to one school for an in-depth enquiry, it was decided to use School 33 as a case study school. This school was chosen because:

- Understanding Industry and Young Enterprise were each present in the school.
- The school had the most extensive history of UI in the County (1977-1984), and had participated in YE for three years. The scheme had brought acclaim to the school:
  
  "The County Young Enterprise scheme has been won by the fifth year on a number of occasions,* and this has been done when competing with schools having a sixth form." (Flynn, 1985).

- The school had a past history of school-work links. Residential Careers Conferences, involving employers, were held beginning in 1970.
- Local employers had been involved in devising a Leaver's Certificate for pupils who requested it.
- An Industry Awareness teacher had been appointed in March 1983.
- The Headteacher was very supportive towards the research.

* The school won the trophy once, in 1981-2.
Furthermore, the school had a well documented history, with log books dating back over one hundred years. It began as a girls' school in 1844, became co-educational in the 1920s and a Secondary Modern after World War 2. It has had two general inspections, in 1949, when Social Studies was experimental, Geography and History being merged, and in 1969, when Citizenship and Environmental Studies were shown to have been added to the curriculum. The school was urged to give "careful consideration to skills, ideas, attitudes and knowledge" at that stage.

In 1974, the school became a 6-form, 11-16 Comprehensive, with nine hundred pupils on the roll. In 1984-5 there were forty-eight staff and two Further Education College staff, thirteen School Governors and a Parent Teacher Committee of twelve.

School 33 is in a small rural town of population 6,900, but few school leavers took up agricultural occupations as far back as 1949. At that time 47% went into engineering, building, and local factories. In 1984, the new industrial estate in the town housed over seventy concerns, giving employment to the area and contacts for work experience. In the summer of 1985, one hundred and ninety-one pupils left the school, of whom:

- 24 entered local 6th forms
- 54 entered local Technical Colleges
- 57 obtained employment
- 23 went on the Youth Training Scheme
- 33 were unaccounted for.

The school was said to have "a solid record of achievement in every aspect of education and compares favourably with any other Comprehensive school in the County." (Evans, 1985).
In May 1983, an Evaluation Report, part of which referred to Industrial-Education Liaison in the school, was produced (County X, 1983). This noted that formal links between the school and the local industrial community were established in 1978. Development had been the original initiative of the Headteacher, who was one of five Headteachers in the county to be seconded to industry for two weeks. The author's research was conducted in 1985, after the evaluator had recommended in 1983:

- More classroom staff involvement with school-industry work.
- School-industry links should not principally be seen in career terms.
- A small working group should consider relevance to all school subjects and extra-curricular work.
- Local representatives should be involved.
- More co-operation should exist between Social Education modules.

The present research field-work took place after the Industry Awareness teacher had given a talk at a staff meeting on 8th November 1984, in order to encourage industry-education links across the curriculum. Here, a sheet of thirty-eight statements referring to aspects of industry which could be part of the school's curriculum function, was given to each member. Using the 'snowball' technique (Harris, 1981), the topic was discussed at length relatively to teachers' own subject syllabuses. The timing of this meeting coincided approximately with the publication of the County Curriculum Document (chapter 3).

The County Industry-Education Liaison Scheme had "considerable influence" upon School 33, according to the Industry Awareness
teacher. Knowledge of SCIP, UI, YE, UBI, CRAC and Project Trident, came from the scheme's intervention. The Industry Awareness teacher began YE after encouragement from the Advisory teacher, and maintained contact over all aspects of industry related work in the school.

It is important to understand at this stage of the research that the SCIP ethos was behind the Industry Awareness teacher's impetus. Having attended a SCIP conference and a CRAC Insight course, encouraged by the Industry-Education Advisory teacher, her Industry Awareness course, and thinking, were given a SCIP focus. School 33 was not a SCIP school, but the scheme's ethos must be considered as part of curriculum development in the school, owing to the Industry Awareness teacher's previous experience. A video recording of Industry Awareness lessons serves to emphasise the SCIP experiential approach. A copy of this was presented to the school as a means of research feedback. (Annex 46).

The lines of enquiry (chapter 2) are linked to various methods of data collection, and form the basis of discussion in this chapter.

The Headteacher and forty-seven staff were interviewed for approximately half an hour each. (Appendix 28, Annex 47-54). The interview data recorded here formed a staff interview feedback document (Appendix 48), which was presented to senior staff at a meeting arranged to discuss findings (Annex 58). Interview data were transcribed (e.g. Appendices 29, 30, 31), and then salient points were listed under question headings.
### Lines of Enquiry Related to Data Collection

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<th>Lines of Enquiry</th>
<th>Data Collection</th>
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<td>- Staff interviews, Headteachers' interviews, school prospectus, and policy documents.</td>
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<td>2. The process leading towards curriculum development in the school.</td>
<td>- Board meetings, interview with Headteacher, staff interviews, County policy document.</td>
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<td>3. The role of the world of work in the school curriculum.</td>
<td>- 3rd year option forms, staff interviews, County evaluation report.</td>
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<td>4. The permeation of the agencies' key concepts and ideas and the acceptance/rejection of them by staff.</td>
<td>- Interviews with staff.</td>
</tr>
<tr>
<td>5. The views of parents, Governors, Careers Service, the local community, and school leavers</td>
<td>- Interviews with representatives of parents, Governors, Careers service and the local community. - School leavers' Questionnaire.</td>
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1. **The Policy, Ethos, and Understanding within the School towards Preparation for the World of Work**

   The documentation giving "minimum levels of competence for the 16 year old" suggests a school philosophy loosely connected with the world of work when it states that a 16 year old should have "practised skills of problem-solving, experimental method and decision-making in realistic situations and understand the basic workings of society and be socially responsible." (Evans, 1984).

   The Headteacher's view of school-industry links were that they are "most valuable. We are trying to get over the view that..."
industry provides basic wherewithal and is a most important aspect of our society in its wealth creating function." (Appendix 42). The Headteacher said that there was nothing written concerning school policy in this area, although attributed the formulation of a school policy for preparation for the world of work to the Curriculum Group. This was a group of staff and senior staff who met fortnightly to discuss curriculum issues. The Industry Awareness teacher, a member of the group, said that a schools-industry policy had not been discussed. (Appendix 30).

When asked how they perceived the policy,

- 18 staff thought there was no policy and stressed the autonomy of individual departments to develop their own thinking.
- 3 thought there was "something vague" but were unable to put it into words.
- 11 considered there to be "an interest in", "an understanding of", or an "ethos concerning" preparation for the world of work.
- 12 interpreted policy to mean the work of individuals, or work within specific curriculum areas.
- 2 put their understanding of the school policy into words:
  
  "To smooth the transition between school and work."
  
  "To give an introduction to the world of work and, as a side-issue, to see some relevance to what they (the pupils) do in school."

The Industry Awareness teacher felt that "there is the beginnings of a policy - a greater awareness than there was."
Questioned about increasing awareness, 6 staff said that they had been under no pressure to change in their own teaching, but 21 staff affirmed that pressure existed from a number of sources within the school, such as,

. the development of City and Guilds courses and Industry Awareness within the school.
. the social climate, affected by the Youth Training Scheme, unemployment and vocational education trends.

None of the national agencies, the subjects of the author's investigation, were noted as being a pressure source.

The staff were asked what they thought of the situation regarding policy which exists within the school. Several problems were highlighted which suggested that the policy (as perceived overleaf) was difficult to implement:

. "the policy itself is not strong enough"
. "pressure of examinations"
. "lack of time for such preparation to be effective"
. "teachers' personalities affect the uptake of ideas"
. "too few people are involved in this area of work".

In one case, a school policy was thought to be unnecessary, since Departmental policy was so strong in itself. A small element were fully supportive of the "policy" as it existed.

The number of staff interviewed had many varied views reflecting the thinking about issues governing curriculum development in this field.

. "Work experience for all is required, with three or four placements, to give a broad introduction to the world of work."
"Education should be for education's sake."
"Schools should not become centres for vocational preparation."
"Is there any work? Is leisure equally important?"
"Unemployment is overplayed."
Preparation for the world of work is politically motivated:-
a) "by the right wing, to maintain the status quo"
b) "by the left to alter the status quo".
"The topic lends itself to lower ability pupils."

2. The Process Leading to Curriculum Development in the Schools

As an introduction to the County Curriculum Policy, the following is quoted:
"It is individual schools that shape the curriculum for each pupil." (DES, 1981).

Giving guidelines, the County Policy (County X, 1984) states,
"schools should attempt to anticipate change - to do this teachers should be adaptable, flexible in approach and open-minded." (Para.3.4).

Aiming to shape the curriculum for each pupil, School 33 adopted the following structure, organising meetings for discussion upon various issues:

- The Academic Board, consisting of Heads of Department and Senior Staff, met to deal with current issues. (Joint issues with the Pastoral Board were sometimes arranged.)
- The Staff Meetings, held weekly before school for a short time, and at other times for longer periods, were the fora for bringing current issues to the attention of the whole staff, and were made
open for discussion.

The Curriculum Group met fortnightly, to discuss future development. Any member of staff could attend these meetings, but only a small proportion, approximately ten at each meeting, did so.

The minutes of all meetings were posted in a small ante-room adjoining the staff room, available for all to read. On only one occasion in the minutes of a staff meeting, was it recorded that there was any hierarchical link between the various meetings, when the Academic Board requested that all syllabuses be reviewed for an evaluation at the end of the academic year 1983. There was no indication that issues arising in the Curriculum Meeting were formally put to the Academic Board, or the whole staff. However, various effects through all meetings showed that a growing awareness was evident, and trends in education were reflected in the recorded minutes. The following summary of meetings, with references to school-industry links, gives a clear picture of developments in School 33.

The Development of School-Industry Links from Recorded Minutes

In 1977, representatives from an Industrial Training Group visited the school to discuss relations with industry and possible liaison with the school. The Headteacher recollected:

"We sat down and talked, but it was not all that fruitful. There's a strong tradition which says that the three Rs and 'O' levels are important. When you start talking of integration, aesthetic curriculum, they begin to switch off. They see it in the light of their own education and haven't noted that these
things move rapidly."

Although this exercise did not prove totally effective, a growing interest was indicated in 1978, by a suggestion in the staff meeting that Industry and Education be the focus of an in-service training day. A number of staff attended a County School-Industry Scheme course that year and reported back. In 1979, all the staff agreed to visit industry as part of in-service training and were sent to eighteen different firms. From this was gained,

"a feeling of depression with the requirements of industry and life. We should be looking five years ahead at least. Education must have relevance to work." (Staff Meeting Minutes, 1979).

This was followed by the appointment of the Industry Awareness teacher and her presentation to the staff meeting (page 224).

It was noted that throughout recorded minutes there were several references to Government and County documents, and statements reflecting their emphases:

"We must make ourselves aware of what is available and must question what we're doing and why we're doing it." (1978).

"The child-centred approach was advocated." (1981).

The Headteacher said in interview, "We always look at Government sources and what they produce. The County Curriculum Policy has had an influence too, but it's not easy to show how, because we digest things and they re-emerge in a slightly different form when we make decisions. We certainly take account of things."

In 1983, the minutes noted that the DES document 11-16 "Towards a Statement of Entitlement" was circulated in the form of a summary
of Red Book III. Other strategies aimed at changing the curriculum were recorded:

In 1982, the Academic Board was concerned with combatting the idea that only 'O' levels matter - an attitude of the school Governors. In 1984, Governors were to be encouraged to adopt a particular Department in keeping with their interests, but no indication that this occurred is recorded in the minutes.

The Curriculum Group, meeting in 1985, felt that talking and working together across departments was a failure, a concern also expressed by the Academic Board in 1982, and noted again by the Evaluation Report of 1983. The Group called for more collaboration and team teaching. Whilst discussing the first year curriculum, a member of the Group cited an example from industry:

"In industry, how many times would someone say 'we want some Maths done?' It's skills we need."

Curriculum Development

It would seem therefore, that ingredients for curriculum development were present in School 33, encouraged by the Headteacher's interest and the appointment of an Industry Awareness teacher. However, in commenting, the staff endorsed the view that systematic planning is needed for a significant effect. The Departmental structure of the school was seen to be detrimental to the development of the whole person. According to many teachers, ideas needed to be spread out more and to be followed by regular feedback. There was curriculum development in the area of school-industry links, but it was slow, owing to the above constraints. Whilst pockets of great activity were observed, the overall view was
that development was not systematic and did not gel. The examination system was also seen to hinder progress. The Industry Awareness teacher saw the topic being incorporated into the whole curriculum rather than being regarded as a fringe activity and also saw the industrial input to the curriculum divorced from vocational preparation. The school evaluation in 1983 resulted in the evaluators feeling that senior staff, established so long in the school, could produce complacency and a resistance to change. Eight staff had fifteen plus years' service, and one of these had been in the school for twenty-seven years.

3. The Role of School-Industry Links in the School. 1984-5

Fig. 8.2 gives a summary of courses involving the world of work. Roughly half of the staff saw this work as being of particular relevance to certain groups of children, for example, older classes, academic forms, or less-able pupils. They felt therefore that the world of work was not of direct concern to them because they did not teach these groups. Several claimed to teach about the world of work in an unstructured way whenever the need was seen to arise. Others organised visits, brought the community into the classroom occasionally and provided situational topics for discussion. The extent to which teaching was influenced seemed to be largely dependent on the subject area and how staff viewed the teaching of their subject.
### 3rd Year Option Choices, with Reference to Courses Including the World of Work, Indicated by Staff Interview Data and Documentation

<table>
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<th>Subject</th>
<th>Notes</th>
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<tbody>
<tr>
<td><strong>English</strong></td>
<td><em>RELIGIOUS &amp; MORAL EDUCATION</em></td>
</tr>
<tr>
<td>0 + CSE</td>
<td><strong>SOCIAL EDUCATION</strong></td>
</tr>
<tr>
<td>A FUNCTIONAL ENGLISH APPROACH</td>
<td>HEALTH EDUCATION</td>
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<tr>
<td>SOME CRAC INFLUENCE</td>
<td>LIFE SKILLS</td>
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<tr>
<td></td>
<td>CAREERS &quot;EXTRACURRICULAR&quot; Voluntary</td>
</tr>
<tr>
<td><strong>Mathematics</strong></td>
<td><strong>CITY AND GUILDS</strong></td>
</tr>
<tr>
<td>0 + CSE</td>
<td>FOUNDATION COURSE</td>
</tr>
<tr>
<td>Maths on Target</td>
<td>COMMUNITY CARE</td>
</tr>
<tr>
<td>Basic Skills Arithmetic</td>
<td>COMPULSORY 3 WEEKS WORK EXPERIENCE</td>
</tr>
<tr>
<td>(County X Scheme)</td>
<td><strong>INDUSTRY AWARENESS</strong></td>
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<tr>
<td>County X Industry</td>
<td>UNDERSTANDING INDUSTRY COURSE (Pupils withdrawn from SPE)</td>
</tr>
<tr>
<td>Education Liaison</td>
<td><strong>CAREERS</strong></td>
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<tr>
<td>Schools’ Mathematics Project</td>
<td>SCHOOL LEAVERS CERTIFICATE</td>
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<tr>
<td></td>
<td>VOLUNTARY WORK-PASSPORT TO BE INTRODUCED</td>
</tr>
<tr>
<td></td>
<td>(OTHER WORK EXPERIENCE PLACEMENTS/ VISITS ARRANGED AD HOC, ON REQUEST)</td>
</tr>
<tr>
<td><strong>Music</strong></td>
<td><strong>TECHNICAL COLLEGE</strong></td>
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<tr>
<td>O/CSE</td>
<td>LINK COURSES</td>
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<tr>
<td>&quot;Education for leisure&quot;</td>
<td>(Aptitude tests required)</td>
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<tr>
<td><strong>Remedial</strong></td>
<td><strong>HUMANITIES</strong></td>
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<tr>
<td>STARAS LEARNING MATERIALS</td>
<td>HISTORY (action learning approach)</td>
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<td>BBC COURSE &quot;GOING TO WORK&quot;</td>
<td>BRITISH SOCIAL &amp; ECONOMIC 0/CSE</td>
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<tr>
<td><strong>CRAFT/DESIGN/TECHNOLOGY</strong></td>
<td>WORLD HISTORY 0/CSE</td>
</tr>
<tr>
<td>HOME ECONOMICS</td>
<td>LOOKING AT HISTORY 0/CSE</td>
</tr>
<tr>
<td>0 - FOOD + NUTRITION</td>
<td>COMBINED HISTORY/GEOGRAPHY 0/CSE</td>
</tr>
<tr>
<td>CSE - HOUSECRAFT (3rd yrs. DESIGN A KITCHEN)</td>
<td>GEOGRAPHY 0/CSE</td>
</tr>
<tr>
<td>COUNTY X INDUSTRY EDUCATION LIAISON INFLUENCE</td>
<td>Simulations</td>
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<tr>
<td>CHILD CARE &amp; DEVELOPMENT - CSE</td>
<td>GYSL - 4th yr. middle-low ability</td>
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<tr>
<td>NEEDLEWORK - O/CSE</td>
<td>GEOGRAPHY &amp; HISTORY (Oxford course)</td>
</tr>
<tr>
<td>ART - O/CSE</td>
<td>Community &amp; Industry (1st &amp; 2nd yr. GEOGRAPHY)</td>
</tr>
<tr>
<td>WOODWORK - O/CSE</td>
<td><strong>PHYSICAL EDUCATION</strong></td>
</tr>
<tr>
<td>TECHNICAL DRAWING - O/CSE</td>
<td>&quot;Education for leisure&quot;</td>
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<tr>
<td>METALWORK - O/CSE</td>
<td>&quot;Education for leisure&quot;</td>
</tr>
<tr>
<td><strong>Science</strong></td>
<td><strong>TECHNICAL COLLEGE</strong></td>
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<tr>
<td>BIology 0/CSE</td>
<td>LINK COURSES</td>
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<tr>
<td>Human Biology 0/CSE</td>
<td>(Aptitude tests required)</td>
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<tr>
<td>Chemistry 0/CSE</td>
<td><strong>HUMANITIES</strong></td>
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<tr>
<td>Rural Science 0/CSE</td>
<td>HISTORY (action learning approach)</td>
</tr>
<tr>
<td>General Science</td>
<td>BRITISH SOCIAL &amp; ECONOMIC 0/CSE</td>
</tr>
<tr>
<td>CSE MOD 1 OR 3</td>
<td>WORLD HISTORY 0/CSE</td>
</tr>
<tr>
<td>Physical Science CSE</td>
<td>LOOKING AT HISTORY 0/CSE</td>
</tr>
<tr>
<td>Physics 0/CSE</td>
<td>COMBINED HISTORY/GEOGRAPHY 0/CSE</td>
</tr>
<tr>
<td><strong>Modern Languages</strong></td>
<td>GEOGRAPHY 0/CSE</td>
</tr>
<tr>
<td>German - O/CSE (SCHOOLS’ COUNCIL &quot;NUFFIELD&quot; APPROACH IS REALITY RELATED)</td>
<td>Simulations</td>
</tr>
<tr>
<td>French - O/CSE</td>
<td>GYSL - 4th yr. middle-low ability</td>
</tr>
</tbody>
</table>

*compulsory
4. The Permeation of the Agencies' Key Concepts and Ideas and the Acceptance/Rejection of them by Staff

Staff were asked about their knowledge and opinion of the school-industry agencies operating in School 33. Several staff categorised the County scheme as an outside agency, although it is not a national one. Its influence being "one hundred percent" according to the Industry Awareness teacher, it was included as an agency whilst questioning staff.

Young Enterprise

Knowledge varied from virtually nothing, to a basic understanding. Several staff were shareholders and knew something of there being a Presentation Evening and of past distinction. A display was mentioned by some as their only means of contact with YE. Most had little understanding of how it functioned. They were aware of the enthusiasm exhibited by the pupils involved, but noted that this varied from year to year. YE was variously considered to be limited, elitist, middle-class, right-wing, an exercise in confidence-building, a good idea, impressive, inspiring and an activity to be developed further in the school.

Since these interviews took place, a mini-company, set up as part of the newly adopted City and Guilds 365 Vocational Preparation Course, has incorporated many of the YE concepts (September, 1985).

Understanding Industry

Few had heard of this scheme or knew anything of it. Some had gained an impression from pupils that some speakers from industry were unable to communicate topics effectively. Staff recognised UI
as a worthwhile activity in principle, but one which had impact on only a few individuals, rather than on the whole school.

**Schools Curriculum Industry Project (SCIP)**

Most staff had not heard of this project. Some were vaguely aware of its existence, but knew nothing of its functioning. A few confused SCIP with the County Industry-Education Liaison Scheme. One person linked SCIP with the County scheme but was unable to explain the nature of the link. The SCIP ideas had an effect on some areas through the Industry Awareness teacher,

"In Art, we taught package design as Artists, now we think of the industrial context." (T.41).

The Head of History had an experiential learning approach, which she had discussed frequently with the Industry Awareness teacher although unknowingly using the SCIP approach.

**Careers' Research Advisory Centre (CRAC)**

Knowledge of CRAC was shown in three areas of the curriculum, as indicated by the Head of Department Questionnaires (Appendix 4) completed in 1984. Opinions varied, resources are often unsuitable for age and ability, courses are expensive, but its resources propagate some good ideas that have been used in the design of syllabuses.

**Industry-Education Liaison in the County**

Using the scheme's acronym, the author encountered a certain amount of hostility expressed towards the use of acronyms in
Education. It was remarked that, "the ordinary classroom teacher cannot deal with these offshoots". Several people linked the scheme with the Advisory Teacher for School-Industry Work, but were uncertain of the nature of his role. Past involvement with the scheme was seen to be greater than in 1985. However, persons directly involved with school work links in the curriculum acknowledged its substantial influence on the school. Industry Awareness, City and Guilds, Design a Kitchen Scheme (Domestic Science), Mathematics - Basic Skills Arithmetic Tests, were areas influenced.

Industry Awareness (IA)

The staff associated IA, or confused it, with UI or YE. The experiential learning approach had aroused some interest and had been discussed at curriculum meetings. Situation ethics, role play, gaming and simulations, were used in some classroom teaching. Active learning was perceived by some to be the most effective means of conveying information about the world of work.

5. The Views of Others

The parents interviewed (e.g. Appendix 33), had children in every year group. Their expectations of the school were job orientated, linked with academic performance: "The hard work ethic is important", although comments were made such as, "I'd like them to be prepared for life after school" and "emphasis should be placed on what employers look for". There was very little feedback from the pupils to the parents, except in the case of one pupil whose parent worked at the school for some time. YE was mentioned by a
parent, since she had been to a YE meeting and seen a company's product. Another parent confused UI and YE, and a third remarked, "I haven't taken a great deal of interest in that type of thing". Parents had little idea of the IA course, and thought the home to be the most influential aspect governing a child's future. One parent called for much more involvement of parents, Governors and employers in the decisions affecting the curriculum.

In retrospect, it would have been better to interview parents whose children were directly associated with UI or YE. These findings merely serve to indicate an ignorance over such schemes on the part of parents, even though letters were sent by means of introduction to the schemes at the beginning of the fifth year. (Three of the four parents interviewed had pupils below this year group, but had had other children in the school.)

The Chairman of the Parent Teacher Association felt that the attitude of sixty percent of parents was "it's your business to educate my kids, not mine". (Appendix 41). The parents most keen to attend meetings were those who had children at the "top end 'O' level, intellectually". Their role was basically to raise funds and liaise between the school and feeder schools. One meeting, to show what the Sciences are to do in the future, was the only one mentioned, which was held with the curriculum in view.

The Chairman of the School Governors (Appendix 35) confirmed that the Governors' involvement with the curriculum was minimal. He did not mention the suggestion of Governors being linked to Departments in the school (page 232) and showed little knowledge of school-industry courses.
Local industrial concerns* in the town were visited (e.g. Appendix 39), the contact being made through the member of staff who organised work experience. These findings suggested that most work experience was geared towards the City and Guilds course, but that other pupils opted to go on work experience occasionally. In most cases there was little feedback to the school, and the firms saw their link with the school as providing pupils for jobs at the end of the school year. The firm sent a completed form to the school, but had no knowledge of national agencies and their effect upon pupils.

The quality of work experience and the placements offered was a concern of the Careers officer. The system of liaison with the County Careers officer was in a period of flux (Appendix 37), an attempt being made to involve form tutors in Careers Education, thus beginning a referral system. Although Careers was part of the Social Education course, the Careers officer had not met all the pupils in the school year 1984-5, the referral system then being through the Careers teachers. Time and cost prevented Careers Conventions every year.

YE had been mentioned to the Careers officer by pupils, in a positive way, and he regarded it as a "pro". UI and SCIP, he had not heard of but he had some acquaintance with CRAC resources. The IA course in Social Education he linked with work experience, and although commenting freely on the course, the author felt that such confusion rendered the comments useless. The link with the County Industry-Education scheme was in the area of work experience, and the Careers Service liaised occasionally over such matters.

*A joiners, a vehicle body workshop, a playgroup.
The Careers officer noted the need for Careers Education to be decentralised, and to have a more educative role, rather than a job-finding one. He confirmed the view that communication across departments was the school's foremost problem. His role, he saw as having to overcome teacher's attitudes, which did not at present allow him to alter the curriculum or timetable in any way.

Some facts obtained from pupils' answers on the school leavers' questionnaire (Appendix 49), were used to triangulate with other data collected. For instance, staff interviewed commented on pupil reaction, and the pupil questionnaire served to endorse these statements, or to give more explanation from a pupil point of view. Parents commented on the fact that they regarded the school as having most influence on a pupil's choice of career (page 237) but the pupils thought otherwise. Of the one hundred and fifty-four pupils present on the day the questionnaire was administered, 28% regarded school as having the greatest influence on their career choice, compared with 21% who thought the family to be the most influential. The school can therefore be deemed an important factor, and the pupils' other answers contribute to a more in-depth enquiry as to the school's area of influence.

In answer to question 3 (ibid), "Which of these courses have you taken whilst at this school?", the most notable feature of the graphed information (Fig.8.3) is that 34% of the year group which responded to the questionnaire thought they had taken no courses dealing with the world of work. Since every pupil followed all, or part (if taking UI) of the IA course in Social Education, this is noteworthy. The IA teacher had commented however, that pupils were unaware of the term 'Industry Awareness' and most regarded it as
Social Education, which represents a blanket term for unimportant subjects in the eyes of the pupils (page 208).

Of the 14% who responded that they had received teaching and other subjects about the world of work, several may have been referring to IA. As the author discovered, the staff themselves were not all conversant with the term (page 237).

Fig.8.3 Courses Taken by Pupils (according to pupil responses from the school-leavers' questionnaire [Appendix 49])

In response to question 6 (Appendix 49), "Did you get the chance to meet people from outside school when you were being taught about the world of work, 41% said 'yes', and 59% 'no'. When asked if these people had made them more interested in the world of work, two pupils who had taken UI had said 'no'.
To establish if there was any lasting impression caused by the SCIP experiential learning idea, used in IA, pupils were asked if they had played any 'games' about industry and commerce in lessons (question 7, ibid). Most of the 81% who responded in the affirmative thought it a helpful method of learning.

None of the pupils involved with YE or UI had asked to go on work experience, but most pupils had part-time jobs outside school.

The response to question 10 (ibid), asking for a description of the world of work suggests that the pupils had difficulty finding a definition. This is not true, however, of those pupils involved in YE, or UI, for the majority of these were able to provide informed answers. Quoting pupils who were chosen for interview previously (pages 176 and 208), the low-scorers on the attitude scales said:

"To enjoy work, which you can do, you have to put your own time and energy into what you do, so you can feel some satisfaction, that you can achieve something, no matter how small."

"There are many different areas of work with a lot of responsibility."

"I appreciate that without 100% co-operation from anyone, the industries collapse."

Other responses, from medium and high scorers were:

"The world of work is a really interesting place to be."

"The world of work is to get the most out of the least. To get as much profit out of little capital."

"The employers give only one chance, unlike school."

These same pupils indicated that their impression of the world of
work had changed since coming to the school and that YE, and/or UI had been responsible for that change. This compares favourably with 54% of the respondents who said that their impression of the world of work had not changed since attending School 33.
CHAPTER NINE
THE ILLUMINATION OF THE STAGE

INTRODUCTION

The four preceding chapters have demonstrated and reported on a process of exploration. Chapter 5 gave a broad outline of the stage and set the scene by describing the 'practice of the action', and how it related to the secondary school curriculum. Chapters 6 and 7 attempted to answer the questions posed in chapter 1 - what are the assumptions, expectations and experiences of the participants in some existing situations?, and how may the effect of some school-industry innovations be improved?.

Chapter 8 recorded effects upon individuals indirectly involved and upon the whole secondary school curriculum, in a further attempt to answer the question - how do such innovations affect the curriculum of the secondary school?

Chapters 9 and 10 aim to consider the focal points raised in the preceding chapters, to provide a more informed understanding of the whole picture gained.

The Pragmatic Approach

The analytical method used is based upon the outline in chapter 2. Using various data collecting methods, light has been focused at different 'levels' (Fig.2.1). Several focal points emerge which, when placed in the context of all other levels, add to an overall illumination of the stage. An accuracy of understanding at any level cannot be reached if divorced from all other levels. The
relationship between levels must be brought into question before recommendations leading towards an improvement in practice can be made (chapter 10).

Fig. 2.1 The Model for the Research

The Effects of some School-Industry Agencies on the Secondary School Curriculum - A Pragmatic Approach through Case Studies
Fig. 9.1 gives a summary of the research, indicating levels, lines of enquiry reflecting the main research questions and focal points which have emerged.

**Fig. 9.1 Focal Points Arising from Lines of Enquiry on which Discussion of Issues are Based**

<table>
<thead>
<tr>
<th>LEVELS</th>
<th>LINES OF ENQUIRY</th>
<th>FOCAL POINTS RELATING TO ALL LEVELS</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEVEL ONE</td>
<td>: LEA policy for school-work links</td>
<td>DIVERSITY OF APPROACH</td>
</tr>
<tr>
<td>National</td>
<td>: Agencies used</td>
<td></td>
</tr>
<tr>
<td>LEVEL TWO</td>
<td>: Past-present-future</td>
<td>CONSTRAINTS TO THE INTRODUCTION OF SCHOOL-INDUSTRY INNOVATIONS</td>
</tr>
<tr>
<td>County and Schools</td>
<td>: Curriculum development</td>
<td></td>
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<td></td>
<td>: Views</td>
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</tr>
<tr>
<td></td>
<td>: Agency use</td>
<td></td>
</tr>
<tr>
<td>LEVEL THREE</td>
<td>: Interpretation of agency aims</td>
<td>EFFECTS ON INDIVIDUALS</td>
</tr>
<tr>
<td>Agencies in Schools</td>
<td>: Experiences of individuals</td>
<td></td>
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<tr>
<td></td>
<td>: Views of agencies and suggestions for improvement</td>
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<tr>
<td></td>
<td>: Administration and role in the school curriculum</td>
<td></td>
</tr>
<tr>
<td>LEVEL FOUR</td>
<td>: School policy</td>
<td>CURRICULUM DEVELOPMENT</td>
</tr>
<tr>
<td>The Curriculum in One School</td>
<td>: Process of curriculum development</td>
<td></td>
</tr>
<tr>
<td></td>
<td>: Role of the innovation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>: Staff interpretation of agencies' effect</td>
<td></td>
</tr>
<tr>
<td></td>
<td>: Views of parents, Governors, staff, pupils, local community representatives</td>
<td>SUGGESTIONS FOR IMPROVEMENT</td>
</tr>
</tbody>
</table>

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DIVERSITY

Provision for School Industry Links

The importance of the school-industry field within the broad area defined as the "world of work" has been indicated by the number of school-industry liaison officer appointments in local education authorities and by the fact that a response to the letter sent to LEAs (Appendix 1) was delegated to nineteen SILOs by Chief Education Officers (chapter 5). However, the variety of respondents' job titles in chapter 5 suggests that each LEA has devised its own method of provision for school-world of work links, based on its understanding of where the world of work would be appropriate in the secondary school curriculum.

SCIP has been seen to have an effect upon local authority appointments. Since part-funding has been made available for SCIP co-ordinators, many LEAs have responded by using these as their SILOs (Wood, 1983). Such was the case in County X, which has a SCIP ethos behind school-industry work. Where the Advisory Teacher had been able to establish a rapport within the County's schools, the SCIP ethos had permeated the schools. This involved constant visits, discussion and planning with the schools, e.g. School 23. Provision of personnel directly responsible for school-industry work in schools, however, could have been improved. The Industry Awareness teacher's post in School 33 was the exception rather than the rule. Most activity in schools in County X was found in those schools where Headteachers had been seconded to industry for short periods of time. The policy of the LEA was to encourage Headteachers to affect the curriculum of their schools, but comparatively few teachers had little more than a passing knowledge...
of school-industry work.

The number of national agencies and local schemes which have featured in this research on a general basis, is very high. If funding is available and more manpower is provided, the LEA tends to adopt a school-industry scheme. Where costs are considered high, a scheme's ideas are noted by individuals having responsibility for school-industry work, but the scheme is not adopted. The SCIP philosophy of advocating teachers to take account of all resources available, to adapt these to relate to their school's local environment, is one which may well have encouraged a knowledge and awareness of national school-industry agencies. This led the author to suspect that many national agencies would feature in this research. Nevertheless in County X, there was a hint of innovation exhaustion in a school which attempted to encompass much of the school-industry field, whilst the general picture is one of a few schools attempting the use of one or two school-industry agencies, using them to complement the school curriculum.

Diverse Policies

LEAs were found to follow the Government's lead which encourages schools to diversify, by developing their own curricula. At school level, few written policies for school-industry work existed in 1982. Headteachers were unable to comment decisively on their policies, and in 1984, staff in School 33 had difficulty in describing their school's policy for this area of the curriculum. They defined their notion of school-industry work in the school as an ethos, or background understanding. There were pockets of activity in County X, where policies were being developed in
response to the LEA directive for an overall Authority curriculum policy. Where policies did exist, at the beginning of the research at school level, they served to increase diversity and localised links.

The world of work area in County X had been an haphazard scenario in the past. Failure over ill-organised links with local concerns had resulted in a hesitation to attempt contact again and this was not a good foundation on which to build. Links may have been exhausted, particularly where several schools span an industrial area, or where there were a limited number of businesses in the immediate environment. The uniqueness of policy, or ethos, depends on views and attitudes prevalent at LEA and school levels.

Diverse Views

Views towards school-industry work were particularly all-embracing. Some upheld the value of academic work and education for its own sake, whilst others suspected right or left wing political motives over industry's involvement with schools. These coloured impressions of school-industry agencies and caused conflict. Antagonistic viewpoints were thought to encourage preservation of the status quo, as the simplest solution to the problem.

Views and knowledge of agencies concerned with school-industry work were often confused, based on wrongful impressions and ignorance at all levels. There was confusion too, over the acronyms used in the school-industry field, and with the actual names of agencies. Teachers generally, were confused over the role of the local LEA scheme in County X, and how this related to the work of national agencies.
The Agencies' Approach

The school teacher is faced with a range of national school-industry agencies, offering varied administrative structures, procedures and aims. The agencies each approach their 'market' in a different manner, although their implementation at school level, is governed by LEA level strategies (e.g. the shortened YE year, and the DIY approach to UI). Agencies in this research have approached schools directly through the local authority, via other schools, or even through the local press. The asset of appointing a coordinator for this work ensures knowledge and a degree of coordination at LEA level, but often alters beyond recognition the agency's approach, owing to educational diversity, which, perhaps rightly, deems individual adaptation vital.

Agencies in Schools

Schools are affected to varying degrees by Government publications and LEA representatives. Headteachers in County X may have come to hear of innovations through the LEA, or developed an interest after secondment (which was often LEA initiated). Schools have diverse methods of viewing and structuring the curriculum and teaching about the world of work appeared to be largely unstructured. When a school-industry innovation was implemented, presumably through an individual's belief in its inherent worth, it would fill any number of slots in the school curriculum. This has been indicated by the way in which SCIP was introduced into four schools in County X (page 136) before the research began. Schools appeared to accommodate school-industry agencies diversely. The pupils involved differed, for canvassing for YE was seen to take
place amidst fourth, fifth and sixth formers during the course of the research. Methods of canvassing depended on the school and were often the source of a scheme's failure (School 1). UI was used as a compulsory subject (School 11) or with volunteer pupils (School 33). The schemes' documentation has been used, or teachers, speakers and advisers drew on their own varied experience and knowledge. Hence, every participant in the school-industry innovations encountered a unique experience. The change agents at each level, whether they were agency representatives, LEA co-ordinators, industrialists, employers or teachers, were presented with a foundation predetermined by the autonomy of the school in its unique environment. Each school found its own solution and developed its own structure, localised problems and personalities ensuring this. Moreover, frustration was caused over constraints on implementation of innovations, imposed upon all levels of the education system.

CONSTRAINTS

At LEA Level

"Economic pressures and constraints" were noted by several LEAs as being responsible for a lack of activity in the school-industry field. Many LEAs in 1982-3, did not have definite strategies and were unco-ordinated in this area of their work. In County X, the work required of one individual with responsibility for schools-industry co-ordination was excessive, so that he was constrained in his own role usefulness. A further constraint within County X was secondary reorganisation, with the removal of sixth forms in the most industrialised area.
At School Level

The school-industry agencies, as innovations, are faced with an "organisational microcosm" (Bunday, 1982). The author observed individuals as part of extremely complex webs, schools as social systems. From Getzel and Guba's model (chapter 4), two dimensions, the nomoeathetic and ideographic, are thought to represent the whole microcosm. The two are held in fine equilibrium for the organisation to function successfully. Successful change is thought to begin with the individual (chapter 4) and this was seen to be the case with the Industry Awareness teacher in School 33. Getzel and Guba's model endorses the problem of the teacher's expected role moulded into the organisational structure of the school and the conflict with the teacher's personality. The teachers taking part in the innovations in this work all approached their roles differently, depending on their interpretation of their roles and their personalities (eg. page 177). Their degree of involvement varied. In School 1, Teacher A treated YE as an out of school activity for which those from industry were responsible. His usefulness was restricted to giving advice within school hours. Teacher B, in School 31, gave practical advice where needed, unsure of his exact role in his first year's involvement. Teacher C's role in School 33, however, was governed by the school's high expectation of her to succeed. Her scale post reinforced this expectation, giving her responsibility for the school-industry area of the curriculum. Her enthusiasm and personality were very much to the fore when she undertook her role as change agent. Conversely, lack of commitment on the part of staff has been shown to lessen the effect of an innovation (Teacher X, School 11, UI), whilst an
innovation will succeed if commitment is underlined by responsibility (Headteacher Y, School 33, his school role and membership of the UI Consultative Committee). The onus is thus upon the school to use organisational strategies to enhance the position of classroom teachers, so that their needs are met, and innovations will succeed. Secondment of teachers has been proved to have limited value, causing organisational disruption (page 143), unless teachers are given a responsible role in the development of the curriculum.

This brings into question the social structure of the school as suggested by Handy (1976) in chapter 4. There was a tendency towards several cultures in the schools in the LEA, but School 33 was considered as the Case Study. A more detailed investigation of school structure in School 33 showed that generally, the school conformed to the role culture, where specialist units were answerable to Senior Management, who in turn were responsible to the Headteacher. When the Industry Awareness teacher was awarded her scale post, others acknowledged and related to her expertise, and her power was linked to this - the task culture. The Curriculum Group formed a person culture, individuals forming a group hoping to influence others. Yet influence is based upon expertise, and since teachers are not trained to evaluate the curriculum, this expertise was small. Was this a reason why innovations did not effect the school, or the Curriculum Group to a great extent? Did they know how to deal with them? The Curriculum Group was regarded from afar, but other staff were unwilling to participate. The presence, and active participation of the Headteacher in this group suggested that the overall stress was on the role culture in School 33.
What barriers exist to innovations, or their ideas, becoming institutionalised? Having asked questions about school-industry work and the curriculum in all schools in County X, the author found that most respondents mentioned the curriculum itself as a constraint to its own development, supporting the findings of Bloomer (1985) and the writings of Reader (1979), Leeson (1982) and Pollard (1984), referred to in chapter 3. A minority of subject areas have been affected by schools-industry work, these being mostly Careers and Business Studies. Heads of Department indicated a lack of knowledge about school-industry agencies, presumably because most activity appeared to be within "fringe-subject", non-examinable areas of the curriculum, lacking importance in the eyes of parents and pupils (pages 237-238). Such a low status of school-industry work does not enhance the position of agencies such as YE and UI. The positions they occupy in the schools studied endorses this. Other curricular activities constrain their effectiveness, such as work experience, school plays, school trips and large work assignments. The innovations studied also encountered competition with other school-industry activities (eg. page 161). If there is no co-ordination of school-industry activities within schools this is almost bound to occur. Staff attitudes were seen to restrict development, for apart from views mentioned previously, the attitude that certain subjects are best for a particular ability pupil, restricts the implementation of an innovation. In School 33, and in other schools in County X (from Headteacher's interviews, chapter 5) the strong tradition of the three 'Rs' still existed. The traditional approach of long-serving staff had been seen as a resistance to change (page 233), as had the many pressures for
change which affect the "overworked" teachers. At a time when teachers' action was imminent, the atmosphere in schools was not conducive to change.

The Organisation of Innovation

A certain amount of information was gained at each level about constraints within the innovations themselves, which hindered their own effective functioning.

Constraints within Young Enterprise

The administration of YE had a personnel which changed every year. This has now changed to include some biennial appointments, in an attempt to give continuity. Two years may also be regarded as insufficient time to develop an innovation and evaluate one's own performance successfully. Schools reported on the scheme's poor administration, and the author reported on a demotivating speech from a new Regional Director (page 172). Generally, Advisers had a lack of experience in talking to groups of young people, and their preparation at the local co-ordinator's meeting received criticism. Frustrations were felt by Advisers who noted that limited resources and costs meant that YE was geared towards the 'cottage industry' with too much paperwork for a small-scale simulation. The experience was interpreted as something lacking in real proportions, although respondents were aware of necessary limitations. YE could not be related to the real world by some Achievers since it remained part of the schools' activities and not industry's. The examination paper's reflection of the experiential learning achieved is questionable, if an Achiever who remained passive throughout the
Company's life (School 1) attained a credit (page 160). The examination papers were criticised as being poorly presented and containing spelling errors.

**Constraints within Understanding Industry**

The danger with this scheme is that schools may use it with no back-up from teachers. This means as an innovation, it will probably fail, although it removes administrative procedures from school staff. Since speakers present the material, teachers may have comparatively passive roles, apart from occasional liaison with a Regional Organiser. In School 11, the reliance upon the Regional Organiser meant that when she resigned there was little commitment to take over administration from within the school, and UI did not provide an immediate replacement. A lack of personal contact during organisation of an innovation suggests eventual failure. Speakers needed more confirmation that they were performing their roles correctly, and needed consultation with each other for moral support. If the correct briefing sessions had been run in the schools researched, many problems would have been overcome.

**SCIP.**

Researching into SCIP was limited greatly, as very few individuals were able to comment on it, or its effectiveness. This seemed to be because few people had heard of the agency, although some were aware of experiential learning techniques to introduce industry into secondary schools. The ethos of SCIP had become more popular than the agency itself, a mark of the success of the LEAs approach. However, SCIP's cross-curricular effect was stifled by
the structure of the school curriculum. A few schools in County X had taken the SCIP approach into account when designing a core curriculum, but these schools had Headteachers who were keen on developing this field in the curriculum. SCIP Newsletters itemise examples of "good practice" in specific subject areas, but none were noted during this research. Outside the subject areas, an example of SCIP's partial success is that of the Industry Awareness teacher's effect in School 33.

A Major Constraint

In commenting about all agencies, respondents pointed to the fact that industry still misunderstands the needs of education and vice-versa. Both agencies (YE and UI) were thought to be right-wing, conservative, involving no trade unions or employees. These misunderstandings were central to the issues raised in the Great Debate and must be dealt with if school-industry innovations are to be deemed successful.

EFFECTS ON INDIVIDUALS

School-industry agencies affected those directly responsible for school-industry work within the LEA. Their effect did not extend greatly to other LEA officers, who showed a lack of knowledge about schemes, and demonstrated that there were unco-ordinated areas within LEAs. The effect upon LEAs was limited by local government delegation, which puts the onus of school-industry development work upon one individual and upon the schools. Attempts at co-ordination at LEA level were shown occasionally to add to confusion and even create hostility within the schools. On the other hand, in
County X, effectiveness could well be attributed to the County's school-industry scheme, rather than to individual agencies.

Those who have been directly involved with SCIP through the LEA have been affected by its strategies and philosophies. No other school-industry agency relates to the curricular models, in SCIP's case, the action research model. However, SCIP is not so much an innovation for a term, or a year, but a whole approach, demanding much discussion at school level. Even so,

"many SILOs appear to interpret their job as liaison rather than curriculum development." (Holmes, 1981).

"What they rarely do is bring about direct curriculum change in schools. They are the true heirs to the Great Debate which institutionalised liaison." (Jamieson, 1985).

Activity within an LEA involves many people attending or organising committees, courses and school visits. The work of these was shown to be excessive during the research, indicating the increased activity in the field. Channelling the effect of agencies from one individual to another, from agency, to LEA, to school, means a minimising of the effect if constraints noted previously pertain.

Schools in County X have been shown to have had an "ad hoc" approach to the world of work, with more activity occurring in some than others. Teachers who recognised and used school-industry agencies and were able to make knowledgeable comments about them, were those who had responsibility for non-examinable areas of the curriculum in most cases. Senior staff or the Headteacher are often more affected than the classroom teacher unless the teacher is
supported by a motivating, enthusiastic Headteacher. In the Case Study School, there was little mechanism for the spreading of ideas. The Industry Awareness teacher affected teachers of Special Education, History and Art, through chance discussion, or through the Curriculum Group. Work of school-industry agencies in School 33 meant an interest was created on a limited scale; eventually change may result. In the other schools where research was performed (Level 3), there was no method of communication for teachers working with school-industry agencies to transmit experiences.

Effects on Participants in Young Enterprise and Understanding Industry

There were noticeable effects upon participants in these school-industry innovations, but these varied, depending on individual personality and how the individual interpreted the aims of the schemes, and their expectations of the schemes. The effect of YE was thought to be limited but worthwhile, given that Achievers in Directors' positions or having career linked aspirations benefitted most, becoming self-confident, questioning and decisive. Self-knowledge appeared to be one noteworthy effect of YE, with Achievers using better communicative techniques as a result. Whilst the scheme provided Advisers with a more informed understanding of young people, teachers who undertook comparatively passive roles were barely affected. It was only when a teacher interpreted the role as that of change agent that the scheme began to have a wider effect, not only on the participants, but on the school itself. The Advisers were assumed to be 'experts', which may not necessarily be the case.
UI's effects were minimised when the scheme was made compulsory. Its effect on speakers provided a better understanding of education, but also uncertainty about mode of presentation. The effects on individual pupils varied from boredom to enthusiasm, depending upon the speakers' styles of presentation, which all differed. Whilst widening outlook and increasing awareness of industry, UI's main advantage was in the support of the YE Company in School 33. Here it seemed to consolidate experiences, giving a more theoretical background to experiential learning. Indeed, this seemed to be lacking from the YE scheme. Overall, pupils in School 33 benefitted from the school-industry schemes and from Industry Awareness, since they acknowledged that their ideas of the world of work had changed since attending the school, and that the school-industry sessions had contributed (page 242). Only one person during the research made a career choice based on UI attendance, most pupils already having decided their careers. This raises the question of whether school-industry agencies should be directed at pupils at such a late stage in their school lives.

EFFECTS ON THE CURRICULUM AND CURRICULUM DEVELOPMENT

At national level, curriculum development through school-industry agencies appeared to comply with Schon's Shifting Centres Model (page 108), where the many developments seem to occur in a random way.

In their trial of 'prototypes' and in their administrative structures, semblances of the models in chapter 4 exist in YE and UI. Yet these agencies do not uphold curriculum models. They do not appear to have intentional strategies dealing with curriculum
development. It is doubtful whether they are regarded as innovations, yet the school-industry agency and the curriculum must be sufficiently in line to be effective.

School-industry agencies, in part, conform to several models already in existence, as described in chapter 4. More than one centre of management exists, the schemes depending upon individual personalities within the organisations, to contact the school. The central management in Schon's Proliferation of Centres Model (page 108) must transmit ideals, commitment and enthusiasm, but since personality is individualistic, some alteration must occur even at this stage. Individual interpretation and personality may alter a scheme's emphases before it even reaches the school. With charitable organisations such as YE and UI, administrative back-up may be found to be lacking because administrators are part-time. Thus, communication lines are difficult to sustain.

Does innovation within schools exist? Who are the change agents? Apart from the lack of emphasis on curriculum development from the agencies, it would seem that the problem lies within education. Although education pays lip-service to curriculum policies, strategies for curriculum development leading to change were found to be rare. Generally, neither YE, UI, nor the LEAs, regard such schemes as 'innovative'. The social climate of the school, the host culture, is not analysed at school or LEA level, sufficiently for these agencies to have a good foundation upon which to build. The teacher, possibly the only individual sufficiently involved in the school organisation to cause an effect on the curriculum, and thus ultimately the change agent, is withheld from having much effect by both YE and UI. Industrialists appear to be
The experts, yet they themselves claim little knowledge of education. UI succeeds or fails owing to its position in the curriculum, whilst the comparative success of YE is that it is extra-curricular and upholds an unusual teaching strategy. SCIP, which also upholds this strategy, has approached the problem of curriculum development from an innovative viewpoint, using the teacher in a self-evaluative role which it claims will lead to lasting change. Even so, the scheme, although not investigating in depth during the research 1983-86, has also been bringing about lasting change. Even so, the scheme, although not bringing about lasting change. Even so, the scheme, although not bringing about lasting change. Even so, the scheme, although not bringing about lasting change. Even so, the scheme, although not bringing about lasting change. Even so, the scheme, although not bringing about lasting change. Even so, the scheme, although not bringing about lasting change. 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"Despite a considerable shift in attitudes and practices over the last ten years, work between schools and industry has yet to become an integrated part of the curriculum - it remains a bolted-on extra."

Recommendations based upon this illumination follow in chapter 10.
CHAPTER TEN

RECOMMENDATIONS

Introduction

This chapter addresses the question posed at the beginning of the research - to what extent may school-industry innovations be improved? It refers specifically to the two agencies investigated in depth, using participant responses as a basis for suggested improvements. The chapter then progresses to recommendations for the school-industry field generally, which aim to improve school-industry innovations and the curriculum of the secondary school. The research is placed in a present day context, and further research topics are discussed.

Recommendations for Young Enterprise

It is suggested that:

1. Off-school premises are used for Company meetings, to give the experience of a 'shop-floor'. This would also lead to increased resources and might facilitate a movement away from the 'cottage' industry emphasis.

2. The scheme could be made more rigorous and stimulating by introducing business games, and a little more theory, as a support for experiential learning.

3. More stress on the importance of theory, understanding, and role-play at the onset of the experience would increase its value.

4. Young Enterprise would be a more realistic simulation if the
product/services were decided before Company positions were allocated.

5. Drawing certain parameters around the experience by limiting the choice of products would give a certain amount of standardisation to the scheme and enhance the quality of the experience.

6. Teachers should be more involved, collaborating with Advisers, assisting the Advisers' approach, providing a solid foundation for the Company.

7. Less paperwork and more emphasis on advising all Achievers would benefit those who do not hold Directors' positions.

8. Advisers should be young and dynamic, in order to relate to young people, and link their personnel departments to the Company, feeding back information, encouraging further relationships between their firms and the school.

9. More efficient administration is necessary at Young Enterprise Head Office, to ensure that kits arrive on time.

10. Regional Directors need to have appropriate personalities in order to motivate Local Education Authorities and teachers, and need to be in close contact with these for a period exceeding two years to reap the benefits of continuity.

11. The examination paper should be evaluated before submission to schools, thus reducing errors.

12. Co-ordinators' meetings, with teachers present prior to a new session should be used for training in some depth. Regular feedback should ensue to give Advisers awareness of others' experiences.

13. Canvassing methods for Achievers should be suggested by Young
Enterprise. If Achievers are chosen at the end of a school year, an early start to the scheme would aid its development.

**Recommendations for Understanding Industry**

It is suggested that:

14. Visits to industry are incorporated as part of the course to support theoretical aspects of management.

15. The role of speakers should be explained to pupils, to avoid misunderstandings over constant references to a firm's products and practices.

16. Speakers should be given a basic training by educationalists with opportunities to meet regularly with the Regional Organiser, teachers and each other, and with those involved from other schools. Pupils will then appreciate links and continuity between aspects of the course.

17. Each speaker should have a reserve, to allow for cancellations, negating disappointment felt by pupils when speakers do not appear.

18. Booklets, if used with the most able pupils, need to be made full use of in a supportive way.

19. Understanding Industry should not be part of a General Studies programme, since the low status of topics in such a course is acknowledged by many. Understanding Industry would be better received as part of an academic course.

20. Schools need to provide a supportive, organised atmosphere conducive with the welcome needed for speakers to present themselves and their subjects well. Teachers need to involve themselves more in order to affect the curriculum.
Recommendations for School-Industry Work and Curriculum Development

21. School-industry agencies should adopt the experiential learning strategy, as more active involvement increases pupil enthusiasm and 'improves' outcomes.

22. Small school-industry agencies such as Young Enterprise and Understanding Industry need to provide a more balanced approach to teaching about industry. Increased trade union and shop floor representative involvement would help this.

23. Since the needs of industry and education are still misrepresented, teachers whose careers are not limited to the classroom or school, could be seconded to training departments of industrial concerns in order to bridge the gap between schools and industry.

24. At Local Education Authority level, educationists are required to advise upon aspects of curriculum development, an area largely overlooked at present. School-industry agencies would then be able to review their approach in the light of strategies for curriculum development, possibly approaching the curriculum group of a school rather than individual subject specialists.

25. Emphasis should be upon curriculum development rather than school-industry "liaison", thus removing confusion caused by many tenuous "links". This research calls for more collaboration, a "symbiotic relationship" (Jamieson, 1985) between schools and industry.

School-industry liaison officers should emphasise lasting curriculum development, encouraging teachers to regard themselves as change agents, for it is only when the teacher
adopts the role of change agent that a school-industry agency will affect the curriculum to any lasting degree.

26. Schools should view the curriculum as a fast-changing entity needing constant control and review. Teacher training and in-service training courses should address the problem of strategies for change.

27. Co-ordination and communication at all levels focused upon in this research is necessary if lasting change is to result. Communication lines should also be seen to be strong between all personnel acting for the school-industry agency.

28. The following is a model strategy which aims to develop the curriculum in a secondary school. This is specifically applied to school-industry collaboration. (Fig.10.1).

The model represents a three year plan involving nine different departments across all faculties of a secondary school. Ultimately, all departments might become involved. The foundation of the model is an acceptance of the necessity for increasing the extent of young people's knowledge, understanding and perception of the world of work and for close collaboration between schools and industry, specifically in the field of curriculum development.

The Curriculum Body's role is to:-

- lead and instruct others in formulating curriculum development strategies, and their subsequent evaluation,
- provide school-industry resources,
- increase knowledge and perception in a structured way.

The onus is upon the Curriculum Body to use strategies, subject matter and human resources, relevant to the needs of local industry
Fig. 10.1  A Strategy for Curriculum Development in the Secondary School

KEY

Leadership and consultative structure - The Curriculum Body.

Collaboration.

1-9 Volunteer teachers from different departments.

Teachers 1, 2, 3 advise and help Teachers 4, 5, 6 to plan and evaluate the work of their departments.

Teachers 4, 5, 6 advise and help Teachers 7, 8, 9 to plan and evaluate the work of their departments.

Teachers 7, 8, 9 assist other departments if the model is on-going.

Continuity maintained and departmental barriers crossed.

Close collaboration between schools and industry to plan curriculum development.

The necessity for increasing the extent of young people's knowledge, understanding and perception of the world of work.
and the environment, as a base for curriculum development and in-service training.

The membership of the Curriculum Body should include:-

- An LEA representative, who would be able to communicate trends in school-industry work and curriculum development.
- The Headteacher and senior staff of the school.
- The teacher in charge of in-service training.
- Three volunteer teachers from different departments, ideally within different faculties.
- Four industrialists, who, as well as their expertise, might provide financial aid. Cost would depend upon individual schools' costings, related to needs.

If one or more industrialists are unable to attend a Curriculum Body meeting, the number chosen initially allows for industry always being represented. Ideally, a trade unionist should be one of the representatives.

- Two higher education representatives, who have an interest in school-industry work and staff development.

In all cases, members of the Curriculum Body would offer an area of expertise essential for the balanced development of the school curriculum, and thus they would have a very functional 'consultative' role.

An evaluation of teachers' roles, the roles of others involved, of subject matter taught, teaching strategies used and resources available is most important. Teachers 1-9 would become evaluators, with communication and collaboration lines, once established, remaining open to the Curriculum Body. In this way, teachers involved, always members of the Curriculum Body during the model's
lifetime, would not lose sight of the fact that they are change agents responsible for a fast-changing entity.

This 'cascade' approach aims to:-

- involve more than one individual in curriculum development in a school,
- keep communication lines open,
- cross departmental barriers,
- limit role culture,
- increase collaboration and knowledge between all parties,
- emphasise action, constant review and change.

It would appear that this model, although specifically designed for school-industry curriculum development might have far reaching effects for other cross-curricular approaches, providing the Curriculum Body membership affords expertise in relevant areas.

The Research in a Present Day Context

Several issues under discussion in the field of education since 1983 have some bearing on school-industry agencies and curriculum development. The formation of teacher contracts, teacher assessment procedures, pupil records of achievements, the introduction of the General Certificate of Secondary Education and more in-service training provision must have had some influence on the school-industry relationship. Furthermore, curriculum development of school-industry activities has been overshadowed by the development in 1983, of the Technical and Vocational Education Initiative, and the introduction of the Certificate of Pre-Vocational Education in 1983/4.

Employer concentration on the larger schemes, including the
Youth Training Scheme, has subdued small-scale school-industry activities, since industry is able to provide only limited time and numbers of personnel. However, some ideas of school-industry agencies have been incorporated into the larger schemes, e.g. the mini-company as part of City and Guilds 365 in School 33 (page 190).

The author recently interviewed a schools-industry liaison officer in Wales as part of the Exeter University evaluation of Industry Year 1986. The respondent summarised Industry Year as being hampered initially by the teachers' pay dispute, but serving as a 'catalyst' for increased school-industry links. More involvement, however, does not necessarily mean more curriculum development.

Since this research was undertaken, Understanding Industry has published 'Briefcase' (UI, 1986), a series of simulations which enhance theoretical aspects of the course. It is too early to state the effects of this, or of Understanding Industry's attempted merger with Young Enterprise, but this would provide a topic for further research.

Suggestions for Further Research Work

At the end of this research there are several questions which remain unanswered. Case-study is by its very nature, an on-going study, and within County X, the following questions could be posed:

. How have Understanding Industry and Young Enterprise developed in the County in the last two years?
. Have the schools which feature in the research adopted curriculum development strategies for school-industry links?

Questions arise as a result of Industry Year:
Have there been changes in industry's perception of education in 1986?

Have there been changes in education's perception of industry in 1986?

What effect has Industry Year had upon small scale school-industry agencies, and upon the secondary school curriculum?

The role of school-industry agencies could be further investigated:

- What role do school-industry agencies have in large scale innovations, such as TVEI?
- What is the role of school-industry agencies in teacher education?

Specifically relating to curriculum development, the following questions could be posed:

- What emphasis is placed on strategies for curriculum development in schools for teachers in training?
- What emphasis do schools place upon strategies for curriculum development? What models exist? How effective are they?

In Conclusion

The effects of school-industry agencies upon the secondary school curriculum are influenced by the role performed by school-industry liaison officers, the extent of negotiation between educationists and industrialists, the learning strategies adopted by the agencies and the schools' management of the curriculum. These affects only lead to change when a permanent alliance based on curriculum development strategies is forged between industry and education. Industry Year 1986 aimed to encourage school-based
working parties to investigate curriculum development, a need highlighted by this research. If this strategy is not planned and established permanently, an important opportunity to take the school-industry debate forward will have been missed.


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AN INVESTIGATION INTO THE EFFECTS OF
SOME SCHOOL-INDUSTRY AGENCIES ON THE
SECONDARY SCHOOL CURRICULUM

A PRAGMATIC APPROACH THROUGH CASE STUDIES

submitted by


for the degree of Doctor of Philosophy,
School of Education, University of Bath

1987

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VOLUME TWO

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Annexed Appendices (in separate box file)

Annex
Number

Local Education Authority and Schools
County Headteachers' Interviews:

1 Schools 1, 2, 3 *
2 " 5, 6
3 " 7, 8
4 " 9
5 " 10
6 " 11
7 " 14, 15
8 " 15, 16 *
9 " 18, 19
10 " 20, 22
11 " 23
12 " 24
13 " 25, 27
14 " 26, 28
15 " 29
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17 " 32, 33
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22 Interview with Schools' Industry Liaison Co-ordinator, County X, 19.12.8
23 County Hall, Discussion of Results, November 1984
24 County Hall, continued

Young Enterprise

25 Pilot School: Young Enterprise, Pupil Interviews for Item Pool for Attitude Questionnaire

Young Enterprise: Pupil Interviews

26 School 1
27 " 31 *
28 " 31
29 " 33
30 " 33

30b Frequency distributions from Attitude Questionnaire

Young Enterprise Advisers Interviews

31 School 1, A, A
32 " 31, A
33 " 33, A, A, A, A

Young Enterprise: Staff Interviews

34 School 1, A *
35 " 31, B
36 " 33, C (T41)

* Transcriptions as Examples in Appendix (Thesis Vol.2).
Understanding Industry

Pilot School: Understanding Industry, Pupil Interviews for Item Pool for Attitude Questionnaire

Understanding Industry: Pupil Interviews

37 School 11, P1, P2, P3, P4
38 " 33
39 " 33 cont.

39b Frequency distributions from Attitude Questionnaire

Understanding Industry: Staff Interviews

40 School 33, Staff Y (also Headteacher)*

Understanding Industry: Speakers' Interviews

41 School 11, A, C1, D1
42 " 11, D1, B*
43 " 33, D, F

44 Brains Trust: School 33, 14.2.85

45 Young Enterprise Videotape, School 1 (included for interest)

46 Industry Awareness Videotape, School 33 (used as feedback)

Case Study School

Staff Interviews:

Side A

47 T2, 3*
48 T7 cont., 8, 9
49 T20 cont., 19, 18
50 T28 cont., 27, 26, 25
51 T32, 31
52 T15, 35, 34
53 T41*
54 T43, 44*

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55 T3 cont., T4, 6, 7
56 T9 cont., 10
57 T17, 16, 13, 1
58 T25 cont., 22, 21, 20
59 T30, 29, 28
60 T34
61 T41 cont.
62 T39

55 Interview with Careers Officer, 3.7.85*
56 Interviews with Work Experience Employers, 1*, 2, 3
57 Interviews with Parents, P1, 2, 3, 4*
58 Senior Staff Feedback Meeting, 2.10.85

* Transcriptions as Examples in Appendix (Thesis Vol.2).
Dear Sir,

I am researching school and industrial/work links as a basis for my doctorate in Education, which is funded by the Social Science Research Council. The full title of the proposed thesis is:

'An Investigation into the effects that organisations which set out to foster Education-Work links have had on schools - their organisation and their curricula.'

I would be very grateful if you could furnish me with any relevant information in this area. More specifically:

1. Documentation outlining County policy in the school - work area;
2. Reports available on schemes underway in the County;
3. Names and addresses which may provide me with follow-up work in the future.

Thank you for your cooperation,

Yours faithfully,

P. Weslake-Hill (Ms).
Dear Sir/Madam,

I am researching into school and industry/work links as a basis for my doctorate in Education, which is sponsored by the Social Science Research Council.

I would be most grateful if you could send me details of your organisation/scheme. More specifically:

1. Printed material outlining policy.
2. Details of any projects devised.
3. Recent publications, including evaluations.
4. Names of key figures, schools or Local Education Authorities, who because of notable work to date, would be useful for my follow-up work.

An opportunity to visit you later in my research would be very much appreciated. Meanwhile, thank you for your cooperation,

Yours faithfully,

[Signature]

P. Weslake - Hill (M/s).
Appendix 3

Meeting with Advisory Teacher for 2nd. Year Work  
Dec. 83.

Meeting was arranged to allow me to further outline my major emphasis of my research. I gave a copy of the plan for 83-84 with an outline of time schedule, with reasons.

Information

1. Beside General (16) as part of a study of management & change in schools, in interview heads & staff in 3 County Schools. This may overlap with my intended visits.

2. I intend to carry a dairy visit to Schools, beginning Jan. 20th. It seems ideal for text to continue for 3 rd.

3. He can provide Hert. schools - development, resources, people places = future. We discussed the need for future plans to be discussed in schools, values that can be retained, e.g. consultation, in simplicity. Part, provide a framework of data for the questionnaire.


- Students Gordan: Reassessment - positive feedback of access to records of courses: ACTARS - all students, Davis, Hampshire, Wiltshire schools.

-Questions in my possession.


Depends on phone call to county. Had suggested producing research, no Headteachers required than visiting every school, but when enquire, found that there is no such meeting next term. There are quite regional meetings which may be useful. 

- eg: Head - meeting in Jan. 18th. Weds.

6. 38 schools (not middle) in recognisation

7. Case studies: I suggested keep involved with a school at the beginning of development, e.g. - committee bringing around to "Hill" project.

Questions for case studies: (which I preferred to discuss at the end of July):

- (see, 1962, Head recorded, etc.)

- (2) from Staff on 1/2 time for 1 yr. to devise curriculum

6
3. 11-16, full-time, shift changes.
4. Head is well thought of nationally, (an N.C. Grand Council) state.
5. Head is well thought of nationally, (an N.C. Grand Council) state.
6. Possible.
7. Further country.
8. Further country.
10. Further country.

**Dates for consideration:**

* Prior invited to:

| Jan. 20th  |
| 24th/25th |
| 26th/27th |

County X, schools.

---

* AT:

1. 10/15th March (G): for Jute.
2. 10/12th May - France.
3. 29th June. Young Enterprise Presentation Group.
4. 9th March. Trade Union - School (P
tit, they have Industrialists).
5. 30th Jan. (full conclusion, years 1-4).
6. 3rd Feb. Simulated with Economics teachers
   (a.m) [viewed by teachers & pupils (15th)
   form] (p.m).

**Next meeting:** with draft questionnaire.

3. 30th, 16th Jan. at ____________

Materials: e.g. of ? cases, list of schools;
QUESTIONNAIRE FOR DEPARTMENT HEADS IN COUNTY X SCHOOLS: SUMMER TERM 1984

These questions relate to the use made of agencies attempting to foster school-world of work links.

It should take 5-10 minutes to answer the questions.

Would you please complete the questionnaire and return it to me, or the member of staff associated with my research, at the end of TODAY. Thank you.

School- ____________________________ Department - ____________________________

Number of Staff In Your Department [ ]

Key to Agencies -

<table>
<thead>
<tr>
<th>Agency</th>
<th>Description</th>
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<tbody>
<tr>
<td>SCIP</td>
<td>Schools' Council Industry Project</td>
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<td>UI</td>
<td>Understanding Industry</td>
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<td>UBI</td>
<td>Understanding British Industry</td>
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<td>PT</td>
<td>Project Trident</td>
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<td>YE</td>
<td>Young Enterprise</td>
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<tr>
<td>CRAC</td>
<td>Careers Research Advisory Centre</td>
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<tr>
<td></td>
<td>Industry/Education Liaison (COUNTY X.)</td>
</tr>
<tr>
<td>MINI</td>
<td>Mini-Companies</td>
</tr>
<tr>
<td>NONE</td>
<td>None of these</td>
</tr>
</tbody>
</table>

To answer, please tick appropriate column(s) -

<table>
<thead>
<tr>
<th>AGENCIES</th>
<th>SCIP</th>
<th>UI</th>
<th>UBI</th>
<th>PT</th>
<th>YE</th>
<th>CRAC</th>
<th>MINI</th>
<th>NONE</th>
</tr>
</thead>
</table>

1. I have heard of: [ ]

2. The work of the Department has been influenced by: [ ]

For those agencies ticked in (2) please answer Questions 3-6. If your answer is 'None of these' please turn to Question 7.

3. Have these agencies influenced your department's: [ ]

   - subject content
   - teaching styles?

4. Have you used any of the agencies' [ ]

   - materials
   - key ideas?
5. What is the extent of the increase in young people's preparedness for the adult world as a result of involvement with SCIP UBI PT YE CRAC MINI

- great
- large
- moderate
- small
- none

6. If there has been an increase in preparedness, has this been in: SCIP UBI PT YE CRAC MINI

- skills
- knowledge
- awareness
- attitude

7. Are you involved with any other agencies which foster school – world of work, links in your teaching?

YES [ ] NO [ ]

If yes, please give details:

8. Do you or are you about to, incorporate any link with the world outside the classroom in your subject teaching?
If yes, please give details:

If you wish to answer further, please do so in the space below or overleaf.

Thank you for your co-operation
Appendix 5

Suggested questions for a structured interview with Headteachers or Senior staff members in County X schools. January 1984

Past

Does the school have a past history in the field of school/work links?

Present

1. School Policy
   a. Headteacher's view of school/work links.
   b. Has he/she been seconded into industry?
   c. Does the school have a school policy for this area? If so, what is it? How was the policy arrived at?
   d. How instrumental are the school governors in this field?
   e. Has the Headteacher invited any industrial, commercial or Trade Union representatives to join the Governing Body?
   f. What part, if any, do parents play?

2. Industry
   a. Are any local organisations involved with the work of the school? How much use is made of them?
   b. Do outside representatives play a part in the design of the curriculum?
   c. How is the school affected by unemployment, if at all?
   d. Are local employers involved in giving careers advice? Do they help to devise instruments for pupil assessment?

3. Curriculum
   a. Is any extra-curricula work done?
   b. Into which area(s) of the curriculum do school/work links fit?
   c. How is this timetabled?
   d. Is any local scheme or national organisation employed or does the school use its own scheme?
   e. Which pupils are involved? Age? Sex? Ability? Is school/work links optional? Do they go on work experience/link courses?
   f. Which staff and departments are involved?

4. Staff
   a. What are your staff's attitudes to school/work links?
   b. Have any staff attended in-service courses, or been seconded to industry?
   c. Are there any former industrialists etc. on the staff?
   d. When recruiting staff, do you look favourably on people who have worked outside education?

Future

Do you have any plans for the future, as far as school/work links are concerned? (E.G. curriculum).
Interview with Head Teacher. School 3.
(This School is a Girl's Secondary School. Church of England maintained)

Q1a. What is your view of school-work links?

A. Well the aims of the school are that our work is directed very much to prepare our young people for leaving school at 16 plus. I'm a bit bothered by the term 'School-Work links', as I was at a meeting only yesterday where the County Senior Careers Officer made the point that quite soon there would be no employment at 16-plus, and so I think that perhaps Schools Vocational Training Links might be a more appropriate expression then. I'm not keen to get my 16-plus leavers into employment. 40 odd did last year, but far from being pleased, I was worried because they are going into dead-end jobs, all too easily available for girls - particularly chamber maiding, badly run restaurants and cafe's, this kind of thing. There is a plethora of this kind of establishment in tourist centres like ----- and I know the girls are going to be often exploited. They will receive no further training, they will have no career prospects and all too often, their working conditions are extremely poor, and if they go, - too bad, there's always another crop of 'cannon fodder' coming along. I'm really not interested in developing opportunities for my 16-plus people to work. I'm much, much more interested in getting them into some sort of training or employment - if it really is sound, and there are going to be properly constructed training opportunities incorporated into the job.

Q1b. Have you been seconded into Industry at all?

A. Not directly. I sent a member of my Staff. I was
selected by the County as one of two County Head Teachers to go on a training session last May, organised by SCIP and it was run by one of the Management Trainers from I.C.I., and that was a very, very valuable experience.

Q.1c. Does the school have a written policy in this area and, if so, what is it and how is the policy arrived at?

A. Well, in as much as it's incorporated into the aims of the school, but we do all that we can to prepare the girls to be equipped with the skills which we think they are going to need to cope with life in the late Twentieth Century and in a very fast changing technicollogical society, yes, it is part of our policy, and that aim is not just a vague general statement of intent. We have undertaken a full-scale Curricula Review Evaluation recently, and it has been translated into objectives and I think it can qualify as a policy and I think I've answered the second part of that question really: by deliberate discussions through the Curriculum evaluation.

Q.1d How instrumental were the School Governors in this field?

A. Well, the Parent Governor is very helpful. He is the Training Officer for P---W--- quite a large employer in S----, and he comes into school as part of the Voc. Prep. programme and has been very helpful in giving us all sorts of advice, but he is the only one, so generally speaking, the Governors do not take an active part.

Q.1e Have any Industrial, Commercial or Trade Union Representatives been Co-opted onto the Governing Body?

A. Well, I have no power to co-opt onto the Governing Body. I should be very surprised if any Head Teacher does. I am informed by the L.E.A. who will be on my Governing
Governing Body, and this being a controlled school, for, and linked with, the Anglical Church Foundation.

Q.2a Are any Local Organisations involved with the work of the School?

A. No. Not directly, apart from P---W---.

Q.2b Do outside representatives play a part in the design of the content of the curriculum?

A. Well, the Careers Service with JIIGCAL has been instrumental in helping us to set up JIIGCAL. Training members of staff to administer it and so on.

Q.2c How is the School affected by unemployment, if at all?

A. It's minimal. Partly because there are so many service industries in a City like S---. I suppose forty out of one hundred and sixty of last years 16-plus leavers were unemployed. 70 plus went into training of some kind and others went into YTS etc.

Q.2d Are local employers involved in giving Careers advice and do they help to devise instruments of pupil assessment?

A. We do invite employers in from a wide spectrum of institutions in S---, to take part in the Careers Voc Prep. Programme. This school is one of two (The other is School I). County Schools which have been selected to take part in the Area Profiling Assessment Project, and it involved the six Area Authorities and the University and the Area Examination Board. Over the next few years we shall be heavily into profiling and we shall certainly be involving the pupils themselves. We have
to devise means of bringing in the parent body and we certainly hope to get discussions going with some of our local employers, and there will be all sorts of opportunities for a whole variety of developments. It is going to be a very exciting time, and we're all a little apprehensive because we can't guess at the resources, particularly time, that are going to be involved and, of course, because one of the reasons behind pilot projects of this sort is to try and get information in terms of time, staffing and so on. This will play a very large part in the life of the school as from next term and I would think we will be devising a variety of instruments on a trial basis. We shall be heavily involved with local employers.

Q.3a Is any extra-curricula work done?

A. Yes, the school is not currently, but up to last year was involved in Young Enterprise. We're submitting an entry for Project Respond. It's closer to Community Service and we are involved with Lloyds Bank through competitions of various sorts, this type of thing.

Q. 3b. Into which area or areas of the curriculum does School-Work links fit?

A. Well, the sort answer is in the fourth and fifth years. One fifth of the week, that is, one whole day is devoted to a Social and Personal Education Programme, and this is organised on a modular basis. It incorporates the usual things - education for parenthood, sex education, moral education, recreational work and also all of the Careers education in vocational preparation, organisation for JIIGCAL, and for one whole term in her fifth form
one morning per week is just community service, e.g. playgroups, first schools, hospitals, old people's homes, day centres, institutions for the severely handicapped. There is a very wide range of institutions where links have been built up over several years right across S-- and it's a very exciting scheme. We do have to place the girls carefully, two will go to a Day Unit for severely handicapped spastics. Some of the sights and sounds can be very distressing for youngsters, but this involves every girl, right across the fifth year.

Q.3c How is this time-tabled?
A. (Answered above).

Q.3d Is any local scheme or National Organisation employed or does the School use its own Scheme?
A. Only peripherally, No.

Q.3e Which Pupils are involved - Age, Sex, ability, is School -Work links, optional? Do they go on work experience or linked courses?
A. Answered above.

Q.3f Which Staff and Departments are involved?
A. That's a difficult one. The SPE Programme involves quite a large number of staff - I guess about eight and they are across the curriculum. They are headed by a Coordinator who is a Senior member of staff here on Scale 4 which was my decision, because I wished to emphasize the status that this whole area of education
enjoyed so she is on a Scale 4. The answer; it's multi-disciplinary and cross-curricula.

Q.4a What are your staff's attitudes to school-work links?

A. Very positive, except that I have a splendid little fighting corner of 'die-hards' who believe that examinations are all, but generally speaking, they are positive, helped because our special SPE set-up has been operational for seven or eight years, although I've extended it and reorganized it so it is accepted by the staff; it's not something rather new and worrying.

Q.4b Have any staff attended In-Service Courses or been seconded to Industry?

A. One chap was seconded into industry for three weeks a year or so ago, and I was a bit disappointed actually, because I had hoped we should get much more feedback into the curriculum. Very little came of it. Partly because he was not, in retrospect, the right person. I'm not quite sure of the value of sending staff into industry. They learn a lot but I'm yet to be convinced that they can acquire any knowledge or skills which they can then plough back into the curriculum.

A number of staff have been on courses of all kinds. I've already mentioned by course which lasted for a whole week, and had simulation exercises and finally we undertook a Consultancy exercise in Industry. My particular group went to an Electronic Warfare Division of --- --- and it was fascinating and taught me a good deal. The school is a heavy user of In-Service provision. In fact, every single year we run into the problem of using up all of our supply cover days, and the sort of courses? - it depends what's available. I've had a
number of staff trained to work within the Careers Programme to administer the JIIGCAL etc.

Q. 4c Are there any former Industrialists etc. on the staff?

A. I don't think we have, unless you count someone who was in the R.A.F. There might well be but I can't give you a clear cut answer. If there are, there aren't many.

Q. 4d When recruiting staff, do you look favourably on people who have worked outside education?

A. It's a very difficult question. The obvious answer is yes. It's much more pleasant to have someone with a broader spectrum of experience than the usual dreary School-College-School approach, but have a very awkward Career pattern which makes it very difficult to appoint them. I think my answer would be 'yes' in the sense that I would be glad to have people who could contribute a broader spectrum of interest, but they are not too easy to come by because all too often their Career pattern is such that the appointment can be difficult.

Q. 4e Do you have any future plans as far as School-Work links are concerned?

A. Very much connected with profiling. All sorts of possibilities. We are to produce a profile for the consumer notably the employer. We need to negotiate with employers, the Careers Service, and off our own bat. So much of the energy, apart from the day to day work of the school, will be put into this Profiling project and I see developments happening through that, and I think it will be a very good vehicle.
Interview with Head. School no. 16. 20th February 1984.

Q.1 Does the school have a past history in the field of school-work links?

A. I've been here since April, 1982 and up until then, there was restricted school-work links. Mock interviews went on and are still going on. The Upper Sixth have evening sessions, a panel of two or three school governors and local firms, and the fifth formers have mock interviews organised by the local Rotary Club representing Commerce. The local Rotary run a Public Speaking Competition, the British Management Branch in S--- previously did that.

Q.1a What is your view of school-work links?

A. I am very much in favour of those that go on. I've been working hard to establish further links.

Q.1b Have you been seconded into industry?

A. No.

Q.1c Does the school have a written school policy for this area?

A. No, nothing written. There's a lot of documentation but it is still in the process of evolution.

Q.1d How instrumental are the school governors in this field?

A. Well, the governors come in for mock interviews and spend a day in the school. Many work in local businesses.
Q. 1e What part, if any, do parents play?

A. Well, many run local businesses.

Q. 2a Are any local organisations involved with the work of the school?

A. Rotary, the Lions Club - two members of staff are involved in those, the Chamber of Commerce in M---- and S----.

Q. 2b Do outside representatives play a part in the design of the curriculum?

A. Governors have a statutory responsibility for the curriculum but no external body has a direct say. Many are involved in the 'hidden curriculum' and extra curricula activities.

Q. 2c How is the school affected by unemployment, if at all?

A. Every school in Great Britain is affected. Yes, the target - the ultimate place where school leavers go is very different to a few years ago. 20% of the fifth formers left to get jobs. Some went into YTS, the others went into the sixth form. The difficulty is defining which YTS schemes are genuine and will result in jobs. Yes, it affect the children's attitudes to exams, success, etc.

Q. 2d Are local employers involved with giving Careers advice and do they help devise instruments for pupil assessment?

A. The Careers Guidance Structure is carefully structured.
It's called SPACE. The local Careers Service is involved through the Careers Officer. We have lessons with the Armed Services, the local Banks come in, some are local, some are nationally based, to the Fourth, Fifth and Sixth years. In terms of profiling, no, not at all, except that they need them for particular purposes and they use records we provide. Many have their own instruments.

Q. 3a Is any extra-curricula work done?

A. No, we have done Young Enterprise. Very much a matter of getting an enthusiastic member of Staff.

Q. 3b Into which area of the curriculum does school-work links fit?

A. They go right across. The Upper School has the SPACE Programme. The First year Sixth go on Work Experience take a week out of the formal curriculum, this year. Some pupils have evening or week-end employment. There is no scheme for Fifth formers for work experience as the problem is getting work done and the problem of getting 240 places in a town of 8,000 population. The Sixth form have General Studies - four periods per week and that's modular, taken every five weeks by individual member of staff. Then there's a mass session on a Monday p.m. when the Trade Unionist or Martial Arts speaker might speak.

Q. 3c How is all this time-tabled?

A. Well, the Fourth and Fifth years have four periods on SPACE - that's a thirty-five minute period and they're
mainly doubles. The Sixth Form General Studies is four periods per week plus one period of Careers and one period of tutorial time. Work experience is out of school. Many individual pupils do Commercial Studies 'A' Level and spend time out and in the Third year they have one period per week which helps them towards option choices.

Q. 3d  
Is any local scheme or national organisation employed or does the school use its own scheme?

A.  
We draw on materials and personnel from virtually everything you've named, Understanding Industry, SCIP, Banking and Service Agencies, Coom documentation.

Q. 3e  
Which pupils are involved, Age, Sex, Ability, is School-Work links optional, do they go on Work Experience or Link Courses?

A.  
Well, SPACE is the pull so it's right across the board ability wise. Careers Education rather than guidance. We're talking about skills for life and work. The F.E. College in S... is fifteen miles away so there are no traditional link courses.

Q. 3f  
Which staff or departments are involved?

A.  
There's a wide range of different departments. We are a Pilot School for the Oracle Project. I suppose Careers, Humanities, Geography, History, Art, T.D. - maybe inputs from all departments. It depends on individual members of staff although the philosophy is that the keeness will go back into the departments.

Q. 4a  
What are your staffs' attitudes to school work-links?
A. Well, those who are involved are extremely enthusiastic. There are slight negative reactions from one or two complaining that pupils in the first year Sixth are missing academic lessons and they are worried about their exam. performance, because other opportunities e.g. residential courses at B--- intervene.

Q. 4b. Have any staff been on In-Service Courses, or been seconded to Industry?

A. Well, no-one's been seconded - we haven't got the scope for that. Most or all of the Staff in Careers Work have been on a JIIGCAL Course in Careers.

Q. 4c. Are there any former Industrialists etc. on your Staff?

A. Unfortunately, no. We have a number who have worked in industry in the past - three or four out of eighty.

Q. 4d. When recruiting staff, do you look favourably on people who have worked outside education?

A. Yes, I look favourably upon people who have had experience. I would rather appoint them from another teaching job.
**Young Enterprise Observation Sheet**

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<th>School</th>
<th>Date</th>
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**Venue:**

**No. of Achievers Present:**

- [ ] Staff
- [ ] Advisers

**Organisation:**

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<th>Roles</th>
<th>Relationships</th>
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<th>Achievement</th>
<th>Comments About Y.E.</th>
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23
Example of Diary Entry for Young Enterprise

School 1
4.12.84.
Achievers 7
Adviser 1
Staff 1

This session was also being videotaped by the school's resources staff.

This was at the request of the Company, who wished to use the videotape as part of its presentation. (A copy of this is found in Annex 45.)

The video recording had a great effect on the roles played.

ORGANISATION

Started promptly. Much more like a Board Meeting. The whole proceedings were very much more formal.

ROLES

The M.D. was more dictatorial in his approach.

Reports given were very clear and organised.

The Adviser was asked several questions and answered some himself, rather than throwing them out for discussion.

One 5th. form girl did not appear to be involved at all, or to be interested to any great extent. (ate sweets and wrote letters to a friend).

A stronger control over Production was called for.

The Adviser said, "You are all showing a passivity. You must make a pig of yourselves to get things done. Everyone must talk about the problems.

Two people must not try to sort it out. The 5th. years are not being involved. The success of the Company depends on the effort of all, not just one or two. Start again with hindsight next term. He emphasised the word 'team'.

24
ACHIEVEMENT

The resignation of the Sales Director was called for.

There was a large order for notepaper.

The disco organisation was discussed.

Some of the Christmas cards were rejects and unsuitable for sale.

A problem with candle production. Can orders be fulfilled?

A display in the school library and staffroom was discussed.

The organisation for car washing was deemed not good enough.

A stronger control over Production was needed.

Mistakes to date are to be reviewed.

COMMENTS ABOUT Y.E.

"These are board meeting, we sit down and get bored."

QUESTIONS

Have the Mock exams affected attendance?

Will 5th. formers have problems next week with work experience and the
time commitment needed for Y.E.?

How do local employers regard pupils who are doing marketing etc. for Y.E?
## Appendix 10

**Understanding Industry Observation Sheet**

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**No. of Pupils Present**

- [ ] Staff

**Speaker**

**Topic**

### Organisation

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### Presentation

#### Subject Matter Clarity

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### Pupil Reaction

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### Speaker Comments

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Example of Diary Entry for Understanding Industry

School 33
21.11.84.

Pupils present 26
Staff Y
Speaker F
Firm f
Topic Human Relations.

ORGANISATION/ROLE OF STAFF COORDINATOR

Several interruptions from staff and pupils. The lesson is timed to begin before registration ends.

The Headteacher introduced the speaker and sat in the room throughout. He encouraged the pupils to ask questions and asked some himself. He summarised, and had to fill in time until the bell went.

PRESENTATION

Subject matter clarity.

The speaker had three main points:

1. People need direction.

2. The role of personnel management. (This was not clear. The terminology went over pupils' heads.)

3. Aspects of personnel work e.g. training

Throughout, the point stressed was that people are the most important asset a Company has.

TEACHING STYLE

PUPIL REACTION

Pupils quite forthcoming with answers. Questioned apprenticeships, arbitration.

Two pupils were giggling most of the time and approximately half reacted passively.
YOUNG ENTERPRISE ACHIEVERS EVALUATION SHEET

Name ____________________________ Date ______________________
Company position __________________ School ___________________

Please tick

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1. How much do you feel the Company has achieved at this meeting?

Please comment further if you wish to.

2. How do you rate your own performance this week, in your particular Company role?

Further comment:

3. How much have you personally learnt this week?

Further comment:

4. To what extent has this meeting changed your ideas about the world of work?

Further comment:
5. To what extent was the advice given helpful?

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Further comment:

6. In which areas do you think you need further advice?

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7. In which areas do you feel there could be an improvement in the way the company is run?

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Appendix 13

MATRAVERS SCHOOL

UNDERSTANDING INDUSTRY 1984-5

NAME ____________________________________________

SESSION DATE 17th January

SUBJECT Management

SPEAKER FROM Buxted Chickens

Please tick one response for each question:

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Young Enterprise - Staff Interviews.

1. How did you hear of the scheme/become involved?
2. How does this affect the rest of your teaching?
3. How do you think it affects the pupils?
4. What do you consider the aims of Young Enterprise to be?
5. How did you choose the advisers?
6. How do you see your role?
7. Would you like to make any improvements to the scheme?
8. Do you see Young Enterprise becoming a more integrated part of the curriculum?
9. Do you need advice?
10. What problems have you had this year?
11. Which pupils have benefitted?
Interview with Staff 'C', Young Enterprise, School 33.

Q.1. How did you get involved with the Scheme?

A. The Head began Young Enterprise a few years back. It was his baby. I took over two and a half years ago. I'd started getting involved with Industry Awareness, and he thought he would delegate Young Enterprise.

Q.2. Does it affect your teaching?

A. In terms of the Art work we do, not specifically, but in terms of Industry Awareness, obviously, yes.

Q.3. How do you think it affects the Pupils?

A. In a variety of ways. It can cause some changes in their Career outlooks. It gives them the opportunity to make mistakes and live with the consequences in a controlled situation. It gives them opportunity to meet with adults other than teachers which they do not have enough of, and it gives them an opportunity to find skills in themselves which they did not know that they had. It can highlight problems with their own behaviour and attitudes which they may not know they had.

Q.4. What do you consider the aims of Young Enterprise to be?

There are specified aims of Young Enterprise. When it comes down to the grass roots level, the aim I would like to put forward is that it gives pupils the opportunity to discover something about running a small
business. It has drawbacks in that you never set up a new Company with a full Board of Directors which have to pay Corporation Tax etc. It doesn't work like that, you also never set up a new Company without knowing what product you are going to make. It's completely back to front. Having said that, it provides a framework on which to start achieving something even though it might not normally apply and I think it gives a series of pegs on which to hang experiences.

Q. 5. How did you choose the advisers?

A. Well, it was what we could get, rather than who we would choose. Last year we had terrific problems in that when we started in the September, I had no advisers. The chap who was going to organise it said he couldn't commit the time every week and I ran it without advisers, and then I and the Head spent time on the phone saying "Please get us an Adviser" and I went to speak to Companies and through them we got A6 from Firm S. The Firm t was never a problem, it was getting people other than t. I got A6 from Firm S and a chap called C--M-- from R---. We ran it through, A6 and C-- started about part way though. The person who was supposed to be in from the beginning came to the first session and didn't turn up again. This year, A6 brought in A7 and t's been no problem. But it's really what we can get not who we would like. The guy who was the original adviser from B--C-- was absolutely outstanding. He had the right way of working with Kids and was always there on time. He was exciting, a great guy, but an exception. He was committing so much more than many people who have jobs, are able to commit.
Q.6. How do you see your role with Young Enterprise?

A. It should be only the liaison between the school and the advisers. It doesn't work like that, because the pupils know me. I'm the person who talks to them about joining it, I'm the person they refer their interim questions to before they actually start because I'm the 'Cheerleader'. That's difficult to start being when all the advisers come in. I find with the set-up the pupils still tend to refer to me first because they know me and it's easier to ask me and easier to see the pupils mid-week. I liaise more with them in the week. It's not only for the two hours. That reinforces the fact that they refer to me which I don't think is a good thing. In many ways it devalues the potential of having the adults rather than the teachers there, and it is something I'm very aware of.

Q.7. Could this scheme be improved?

A. In this specific school, yes. Time is the problem. We start at 4.30 but that's half an hour before our first adviser can arrive, but we can't start any later because of the pupils getting home. It's a great problem. Also the Fifth formers are committed to other things. They have exams and the school play, for instance.

Q.8. Do you think that the scheme should be part of the school curriculum?

A. I would like it to be very much. In the U.S.A. it is the exception rather than the rule that pupils don't do Young Enterprise and if we run the new City and Guilds 365 Course next year, I shall put an input into that about running a Company. I've written up a syllabus for
that, borrowed some things from the Young Enterprise set-up and I'll be then running two Companies a year which is going to be extremely difficult. This is the way into the curriculum but it will only be for a small target group. The other thing, a broader part of the curriculum, the cost in terms of space, teacher-time and resources would be phenomenal. We used a computer last year and they wrote programmes last year since we had computer skills.

Q.9. Would you like some more advice?

A. Yes, I think I would. Specifically in terms of product design, and how to put it over to kids. I think of skills in an Artistic sense, and in a way, I don't think enough about other types of products. Because of my status as an Art teacher they tend to think very much on the Craft side. I don't know the first thing about Technology and would like to have a Technology input.

Q.10. What problems have you had this year?

A. Well, we had one evening with no advisers, we've had an accommodation problem. A vast amount of things the pupils could have improved on, but it is not our role to point out their mistakes. They don't see the problems they can think they're doing exceptionally well, yet from the outside you can see that sales targets are not being met, for instance. Sales has been the big problem this year. There are varying degrees of commitment. Then, with what's expected, planning ahead, forward planning, perhaps it's not very interesting. We've never had a production problem, it's planning for sales etc., which is a problem. The tedious bit - they're still at the age when they're looking for the fun bit.
Q.11. Do you think there have been any pupils who you could highlight as having gained through this experience this year?

A. 2, without doubt. 16, in an odd way - she's Head Girl and not particularly liked; quiet and straight and in role as Secretary she was terribly efficient. 7, throwing together a pattern and designing it in her lunch hour. She's used and transferred her creative skills very rapidly indeed. In many ways, they've all developed.

18, has learnt how to use a sewing machine and he's a wizard on that now, and he's also come out of himself more. He put forward better communication now. On a personal basis it's super with all of them though, you tend to forget you're a teacher towards the end.
Understanding Industry - Staff Interviews

1. How did you hear of the scheme/ become involved?
2. How does the scheme affect the rest of your teaching?
3. How do you think it affects the pupils?
4. What do you consider the aims of Understanding Industry to be?
5. How did you choose the speakers?
6. How do you see your role?
7. Would you like to make any improvements to the scheme?
8. Do you see Understanding Industry becoming a more integrated part of the curriculum?
9. Do you need any advice?
10. What problems have you had this year?
11. Which pupils have benefitted?
Interview with Staff X, School 11.

Subject: Understanding Industry.

Q.1. How did you become involved with Understanding Industry?
A. Through General Studies. I was asked to take on the whole of General Studies.

Q.2. Does it affect your teaching?
A. Not at all, except it's time consuming.

Q.3. How does it affect the pupils?
A. In a small way giving them a taste of jobs in industry.

Q.4. What do you consider the aims of Understanding Industry to be?
A. To provide an appreciation of what goes on in various disciplines.

Q.5. How did you choose the speakers?
A. I did not. The Regional Organiser was sent the dates, she filled them in, and then, because she resigned half way through for this term, I had to get confirmation.

Q.6. How do you see your role?
A. As a provider of information, to liaise between speakers and General Studies Organisation.

Q.7. How would you change the Scheme for next year?
A. I'm not certain I'd use it again, as we've been let down both terms. I would change the set-up altering General Studies into themes and ideas. I'd look for an appreciation of Industry in the course but not eight weeks of it. Rather gearing the pupils towards what's next after the Sixth form. Having two groups is a waste of time. Understanding Industry appears to be very one-sided. No-one has been in from the shop floor, or from the Unions, and I'd make more of a balance.

Q.8. Can you see Understanding Industry influencing or becoming part of the whole curriculum?

A. No. I see it being taken away or diluted. The speakers who we've had have had a good relationship with the school of long standing, and I'd still bring them in and use them for discussions.

Q.9. Do you, or did you need any advice?

A. Yes, in taking over. Another staff member helped me. I was rather l Garnered: it because the Head was so keen.

Q.10. Can you see any other improvements which could be made?

A. Yes, in contacting speakers. In the first two years it worked when the Regional Organiser and the other staff member (above) worked together.

Q.11. Which pupils have gained?

A. I don't know the pupils well. Some of them I teach but in my role, I hardly see them.
Appendix 18

INTERVIEWS FOR SPEAKERS AT UNDERSTANDING INDUSTRY SESSIONS

1. How did you become interested in the scheme?
2. What do you consider the aims of the scheme to be?
3. How does it help your firm/relationships with the school?
4. Is the material you are asked to present closely related to your own experience?
5. Do you find your role easy?
6. Would you appreciate further help from educationalists?
7. How much preparation time does U.I. take?
8. Have you had any previous experience of talking to young people? Did you attend a training session?
9. Have you been influenced as far as your perception of education is concerned?
10. Has UI changed your impression of young people?
11. Does this scheme influence the rest of the school in any way?
12. How does the present group relate to past groups you have spoken to?
13. Would you like to make changes for next year?
14. How may the scheme be improved overall?

Questions for speakers who cancelled their engagement with the school.

The questions above that are relevant, plus:

How many sessions of UI have you taken in the past?

Why did you cancel?
Interview with Speaker B. School 11. - Understanding Industry.

Q.1. How did you become interested in the Scheme?

A. I don't remember to be honest, but somebody rang the Company and he was put through to me and I said yes.

Q.1b. So that's the Administrators of Understanding Industry presumably?

A. I would guess so, yes.

Q.2. What would you consider the aims of the Scheme to be?

A. Presumably to give school children some idea of what they're going to face if they go into industry, and if they don't, some understanding of what industry is about, since it's a fairly major part of our existence.

Q.3. How does it help your Firm's relationship with the school, or your relationship with the school?

A. Well, in the literal sense, - no, we don't get any business from them. In the short-term, I've made an offer -"if you're ever interested, come and see us", and as far as I know, nobody ever has. In the longer-term, whether people will retain some interest in it, and become interested in the Company, or in the product, or want to come and work here, I've no idea.

Q.3b. Has your relationship with the school improved, on a personal level? Do you feel you could go in again?

A. With School 11 particularly, although I've been to three or four. I've been back to two plus School 11. They're fairly lengthy intervals between - one per year, whereas School 11 runs it more often.
Q. 4. Is the material you are asked to present, closely related to your own experience?

A. Well, the booklet I've seen, which, to be honest, I don't use, and the schools don't use much from what I've seen.

Q. 4b Would you use it?

A. Well, I think it's good material, it's well written, well put together, it puts the case, explains the situation well. The only reason I haven't used it is that from what I understood the brief to be, it was considered better to use my own experience rather than stick to the text and as a general text on the subject, I thought it was very good. I have recommended it to various people. Whether it's because it appears in the guise of a set book that they've said "O.K. I'll read it one day", but as somebody inside marketing, I'd say it was quite well put together.

Q. 4c Did you decide your own experience with Firm b was going to be what you talked about or did the Regional Organiser have a say?

A. I can't honestly remember. I feel fairly sure that I was encouraged to base it on my experience rather than the book itself. I have used my overall experience and wider - not limiting it to Firm b.

Q. 4d Did you have any preliminary discussions with anyone from Understanding Industry?

A. Yes, but again, it must be a couple of years' ago. I can't remember in detail what was said. At that point I was encouraged to use my own experience and to put across to them, that is, try and tell them what I had
found out about life in industry. My only other memory of that was that I was told that I would be working with widely varied groups in terms of ability, interest, age and what may work for one group, may not work for another. Which may be why I haven't been asked back to a couple of the schools. I may have pitched it wrong. Until you actually do it, you don't know what you're going to get. I've tried to do a few completely off the cuff but school kids are not renowned for giving a lot of feedback.

Q.5. Do you find the role easy?

A. No. In some ways they're a difficult audience. It is a certain effort of will to think back to that particular stage in life. In retrospect, I had no idea what an office was in terms of day to day existence. I've had the occasional question - "What happens when you go into the office at 9 o'clock" I've tended to skip that and go into the theory - "What is marketing in broader terms"? - I've sometimes felt I've been missing the target, although at other times I've been hitting the target.

Q.6. Would you appreciate further help from Educationists?

A. In general terms, yes, but in reality it's a communication problem. It's how to communicate a life-style or mode of existence to someone who is ten or twenty years younger. It's fairly insoluble, no matter what the briefing. It helps to know whether they're bigger or a smaller group, whether they're 'O' or 'A' level, are they studying Economics or Literature - that type of background, and the teacher usually has a fairly good summing up - "Yes, they're bright, no, they're
not stupid" on that sort of level. Ultimately, there's no type of briefing that can give the ultimate answer which is how to get across an experience which they will not have experienced and which they may never experience in the future.

Q.7 How much preparation time does Understanding Industry take?

A. Initially it took a fair amount. For the first two or three times at least, I was trying out different presentation methods. I also had to persuade my bosses that what I was doing was going to be worthwhile.

A.7b How did you do that?

A. I think I probably sold them on the idea of local P.R. for the good of the community, improving our name etc. There have been a number of pupils who I've spoken to, who have been sons or daughters of people at this Company or who have known people in the Company, so feedback has come back this way. For example, the Production Director's daughter has been at a session and she said, having heard me, it was the first time that she's understood what the Company did. I didn't know quite what tack to take. After two or three sessions, I established a 'Mark 1 Presentation' which was a didactic session and a free-form session, following the directions of pupils in the room saying - "Why did you buy something?" or "Have you seen an advert which impressed?". Sometimes it works, sometimes its a dead-end.

Q.7c Have you done any talks in Private Schools?

A. Yes.
Q.7d  Was feedback there more forthcoming?

A.  Largely more so, not substantially. The pupils, for their age are more broadly aware - they've had an experience of different environments. They are brighter at picking up references faster, but I wouldn't make a big thing of that. Some of the pupils from the State schools have been equally bright but also equally lethargic. I've had my share of people falling asleep.

Q.8  Have you had any previous experience of talking to young people?

A.  Only when I was a young person, at school as a Prefect, in the Cadet Force as an Officer - I talked to my Peer groups. In University we did live shows for those who didn't get to live shows e.g. Borstals or hospitals.

Q.8b  Did you attend a training session?

A.  The training sessions were more on what Understanding Industry was, and what it's aims were. I don't think that there was much practical counselling. There was one session held at a school. No practical advice was given about how to do the presentation beyond the encouragement to base it as much as possible on basic experience.

Q.9  Have you been influenced as far as your perception of education is concerned?

A.  I do think it would have been nice if this would have happened when I was at school, although, again, trying to think back to that age, I wonder what use I would have made of it. We did go through a couple of similar not very structured, presentations. I remember thinking
"interesting, but so what? - where does that take me?".

Q.9b  Is that the type of influence it's having today?

A.  It's difficult to say with my limited experience. Out of every session I've done on average, I've had maybe one or two people coming up and saying "that was interesting, I'd like to know more". That's probably the best you can hope for. One has to assume that the rest have, to some extent, absorbed the message. What use it would be in a practical, social way I don't know.

Q.10.  Has Understanding Industry changed your impression of young people?

A.  Difficult. I suppose by and large, they behave in the way I would have expected, - the way I would have behaved at that age. In the Public Schools the atmosphere is more dedicated, and disciplined. There was an understanding on the part of the pupils that they were there for a given purpose and that they were prepared to participate in that activity in a fairly positive way. By slight, subtle signals, the kids in a State School had the attitude "we've got to go to these sessions" and when there, they participated fairly willingly, given the odd one or two that fell asleep. I don't suppose I've materially affected any one of them in their way of life, industry or anything else. If it was carried out consistently by a number of disciplines in industry on a coherent basis as part of a wider activity, I'd hold up some hope for it. To me it feels I'm turning up in isolation - a one-off, the only one doing it.
Q.11 Does this Scheme influence the rest of the School in any way?

A. I've no way of knowing that.

Q.12 How does the present group relate to past groups you've spoken to?

A. Of the State Schools I've visited Sc. 11 were the most active, participative, reactive group. The teachers were enthusiastic. I've been there before, maybe word of mouth that "He's not totally boring!", and so they listened to me. I don't know the reasons behind it.

Q.13 Would you like to make changes for next year?

A. I'm not sure there is an ideal presentation. I'm very willing to change and open to change. I introduced a film once that went down like a lead balloon. I think I've introduced a balance between theoretical learning and putting across experience. The fundamental block remains - how do you explain to an African the concept of snow?, and how do you explain to someone whose been in school what going to work is all about? At University at age 21, people were saying "What's it like to work in an office?". It's impossible to put over to 'O' or 'A' level students, short of offering them placements in a business, which, informally, I've done, I've asked if they are interested to come, but it hasn't been taken up.

Q.14 How may the Scheme be improved overall?

A. Beyond getting the best speakers you can for a given speciality, I don't know. I was turning up as part
of a wider scheme of things. It would be nice to feel that I was turning up as part of an integrated process. At the end of the sequence, they could have a more rounded picture of what it's about. I would like to know other speakers had been there to tie it all together to refer back. If I make a categorical statement about finance, I don't know if I'm contradicting someone who's been there the week before, thereby increasing the confusion. I would hope I've been reinforcing the message without knowing who's been there, and what said.

Q.14b Would you like to introduce an element of Work Experience?

A. I'm happy for people to come in and sit around and watch and ask questions, but realistically, there's not much within my discipline which I can give people to do.
INTERVIEWS WITH ADVISERS OF YOUNG ENTERPRISE GROUPS

1. How did you become interested in the scheme?
2. What do you consider the aims of the scheme to be?
3. How does it help your firm/relation ships with the school?
4. Do you find the advice you are called upon to give is outside your own experience?
5. Do you find your role easy?
6. Would you appreciate more help from educationalists?
7. Do you think that YE is a true simulation?
8. How much preparation time does YE take?
9. Have you had previous training/experience at giving advice to young people?
10. Have you been influenced as far as your perception of education is concerned?
11. Has it helped with your perception of young people? Do you approach them differently when they come for interview etc.?
12. Do you see this scheme developing further within the school?
13. Do you think it affects the rest of the school in any way?
14. How does performance of this present group relate to the performance of previous groups?
15. What changes would you make for next years group?
16. What changes would you like to see in the overall operation of the scheme?
Interview with Adviser (A1). School 1.

Subject: Young Enterprise.

Q.1. How did you become interested or involved in the Scheme?

A. The school started it four years ago with Lloyds Bank who did not renew their commitment. Three years ago, A approached us through Group Personnel. He first approached x, then it came eventually to Firm A. They wanted someone in the area of General Management and Marketing, so A3 and I committed ourselves and we brought in A2 this year as we had begun to miss meetings. A2 is on the Admin. side and is therefore there most of the time.

Q.2. What do you consider the aims of the Scheme to be?

A. That's really defined by the people who do it, increasing the prospects and awareness of children. Our aim is probably something more. To introduce them to the industrial environment, to put them into a thinking situation and to develop skills not normally associated with school. This is why we brought them out of the school. In the first year we ran it, the teaching contact was over-zealous. In the factory it's better, although having to produce things, there is a lack of facilities eg. sewing machines have had to be brought in in the past.

Q.3. How does this help your Firm?

A. It's had a spin-off through A3 and I having a greater awareness of educational needs. A3 has been associated with the University's Pre-Voc course, and I'm on the County TVEI Committee. It hasn't had a direct impact.
on the Firm, but I always take them around the shop floor. It's given us an awareness of the vocational needs of education, and our people see them coming in and see the link with education.

Q.3b
Your relationship with the school?
A.
Well, it gives the school a communication with industry and a better vehicle to come into industry. It's only part of our Education/Industry link because the lower school's Vocational Studies man has approached us now with a view to setting up a mini-Company for years one-three using Firm a's premises.

Q.4
Do you find the advice you are called upon to give is outside your own experience?
A.
In the first year, possibly. I've been in industry eight or nine years. We come across problems on a different scale in the Young Enterprise Company but experience is related to them. I think we have sufficient intelligence to cope with the mundane problems which sometimes occur.

Q.5
Do you find your role easy?
A.
I don't think easy is the right word. If I thought it was easy, I wouldn't be fulfilling it. It's not difficult, it requires specific knowledge but it's limited and watered down. Most advice comes from common sense except in cases when our own Industrial training helps, in areas such as accounting, how to run meetings, etc.
Q.6 Would you appreciate more help from Educationalists?

A. Yes, to a limited extent. I'd welcome information on how a school runs the project and how it is integrated. A knowledge of the pupils beforehand would be useful, and what they intend to do. If we talked to the Head of Year about some problem pupils beforehand, maybe some problems at the beginning of one year would not have occurred. A3 and I are involved with Industrial Psychology which is not far removed.

Q.7 Do you think that Young Enterprise is a true simulation?

A. No, it never can be. They can never compete in a market with their production. We have to include services to make a profit. It's the best simulation you can get in the time available - better than a computer simulation. There's a danger with everything becoming computer-based although it would be good to include a business game simulation at the end.

Q.8 How much preparation time does Young Enterprise take?

A. Very little. It maybe should take more. A3 and I meet at lunchtimes and before meetings.

Q.8b Have you had previous training or experience at giving advice to young people?

A. Yes, I've done some private music teaching - I'm a qualified Music Teacher. I've been a Youth Leader for seven or eight years. I'm a Crusader Leader involved with camps.
Q.8c Is there a communication with staff beforehand?

A. Well, Teacher A can't make the meetings. We talk to him at the beginning of Young Enterprise and two or three times per term.

Q.9 Have you been influenced as far as your perception of education is concerned?

A. Yes. When we were first involved, I noticed a lack of awareness and practicality. They're not very well versed in practicalities. I expect them to have more common sense. Whether that is an educational fault or not I don't know. They do have a total misconception of industry and this is the fault of teachers who have misconceptions themselves. Teachers meeting with Industrialists behave very strangely, always so formally in addressing the Chair. Most of our meeting are informal. This seems to have drifted down to pupils. Yet how many teachers get into industry. Personnel Managers should be more involved. The ideal is the proposal to merge TVEI with Mode 3 exams. This will make Educators and Industrialists sit down together to define the curriculum tailored to the needs of both.

Q.10 Has it helped with your perception of young people - do you approach them differently when they come for interviews etc.?

A. I had a pretty good perception through other links. I've worked with them ore but it hasn't affected interviewing. I tend to interview specialists and the interviewing technique is not linked to a perception of people. Ideally, personnel should be aware of what's happening in schools.
Do you see the scheme developing further within the school?

Well Young Enterprise is specific to Teacher A and Economics. It's strange because few Economics people end up here. Our qualifications are in Music and Zoology etc. It could develop to include everyone in the Sixth form who was interested.

Do you think it affects the rest of the school in any way?

I don't know. No-one has ever come along to the Presentation Evening. The Head of Sixth and the Headmaster did one year. The school must be aware of its existence if only in terms of cheap products and services from November to March, but I don't know to what extent.

How does the performance of this present group relate to the performance of previous groups?

The first year, the member of staff pushed them to make a profit. In the second year, it went entirely the other way. We worked on experience and had no profit. In the third year - this year - there's a split. Less production because of problems with communication in the school. Products and services can be interchangeable, but they can't appreciate that. Young Enterprise is best when a production line is in operation. If they don't come up with a suitable product - ideally it should start two or three weeks beforehand, to give more time to think of products. The kids were late this year and time is needed to hit the Christmas market.
Q.14 What changes would you make for next year's group?

A. 
1. I'd have the Sixth form only.
2. I'd sell it to the school - a broader based group.
3. I'd run it a bit longer to have time at the end to go through accounting, marketing and banking, and relationships to industry.
4. The two hours a week is not enough. They were working in free period and lunch hours which is not ideal. I'd move the timing from three to five instead of four to six, maybe making it a whole afternoon.
5. I'd make a better link between the school and industry.
6. I'd have better facilities.
7. I'd want a far more professional approach.

Q.15 Is there anyway the whole scheme may be improved?

A. 
The professionalism of the organisation itself is pathetic. e.g. The exam. paper. The new Director of Young Enterprise will help I think. It can be improved by schools and industry working together. More industrial links within the school curriculum.

Q.16 Do you have any further comments?

A. 
There's a problem with advisers, their time and their other commitments. It's excellent if it is run properly. It's a good scheme in principle. It works well and the pupils benefit.

Q.16b How do they benefit?

A. 
You see a change in awareness of pupils. Initially,
they don't have a clue, for example, in the pricing of a product, but you can see from the exam papers that they've taken it in. They're helped with problem solving.
Young Enterprise Interviews - Pupils.

1. How does Young Enterprise complement your studies?

2. Do you think that Young Enterprise will get you a job when you leave school?

3. Has your curiosity been awakened concerning the world of work?

4. Does school seem more worthwhile as a result of your belonging to Y.E.?

5. Does Y.E. highlight differences between managers and employers?

6. Is there a better relationship created with the advisers of Y.E. than with the teachers in school?

7. Are Board meetings stimulating occasions?

8. Is Y.E. a social occasion?

9. Has Y.E. made you more ambitious? What do you want to do?

10. Does Y.E. help you learn more about yourself?

11. Why did you join?

12. Have you seen any theoretical work you've done in practice?

13. Does Y.E. give you a good insight into how a Company works?

14. Have you learnt respect/lost respect for others?

15. Has Y.E. changed your mind about courses to follow in the future?

16. Do you think that Y.E. should become part of the life of the school?

17. Has Y.E. helped your decision making?

18. Do you agree with the statement "the Y.E. company is as bad as its worst member."

19. Would you recommend Y.E. to anyone?
Transcribed interview with Pupil: Young Enterprise.

Q.1 How does Young Enterprise compliment your 'A' or 'O' level subjects?
A. Yes, it does to a certain extent because it helps with leadership, organisation, the way you have to communicate. Not necessarily complimenting, it's like General Studies, we have to do General Studies 'O' Level and it broadens horizons. I'm doing English, History and Maths. 'A' Level.

Q.2 Do you think Young Enterprise will get you a job when you leave school?
A. Yes, I think so. It shows you're prepared to participate in something voluntary, to gain experience. It helps leadership. It shows that you're willing to do things which will help when working. Employers like to see enthusiasm.

Q.3 Has your curiosity been awakened concerning the World of Work?
A. You're all friends. It's done less formally in school. Yes, it shows how a Company is run.

Q.4 Does school seem more worthwhile?
A. It makes you work for the Company, it's worthwhile in that sense.

Q.5 Does Young Enterprise highlight differences between Managers and Employers?
A. Yes, because the Managers have to have all the hassle of trying to organise. It shows up weak points if you
can't do that. The workers just get orders. Managers have to do more thinking.

Q.6. Is there a better relationship created with the Advisers of Young Enterprise than with teachers?

A. Yes. It's better with Advisers. With teachers you have too many people in a lesson, with a set number of things to do in a lesson, and, they're advising anyway, not teaching.

Q.7. Are Board Meetings stimulating occasions?

A. Stimulating? Yes, a certain amount of talk is done. More is achieved there than at school.

Q.8 Is Young Enterprise a Social occasion?

A. To a certain extent, not really. We are there to do work, but it's a friendly thing. Not mainly a social occasion.

Q.9. Has Young Enterprise made you more ambitious?

A. Yes, because I like the idea of Manager/Directorships. I'd like to get 'A' Levels, go to Oxbridge and get a good job. I'll probably do History.

Q.10. Does Young Enterprise help you learn more about yourself?

A. It showed up my strong points and my weak points.

Q.11. Why did you join Young Enterprise?

A. An older sister told us about it. She'd enjoyed it. We had the idea that it's interesting. Mum and Dad thought it important and it seemed a good idea to see how the world of work really is.
Q.12. Do you see any theoretical things that you've learned in school, in practice through working in Young Enterprise?

A. No.

Q.13. Does it give a good insight into how a Company works?

A. To a certain extent. It has the proper structure but it can't be wholly accurate, because we're all friends. It's not treated like a proper Company. An accountant sees it's all done.

Q.14. Have you learnt respect or lost respect for others through it?

A. I haven't lost respect for anyone. Some do a lot of hard work and put in extra time and you can respect them for that.

Q.15. Has Young Enterprise changed your mind about Courses to follow in the future?

A. It sort of has. I've started to consider whether to do History or Business Studies or Courses like that. There's so much you need to know. I'm thinking of doing Economic History.

Q.16. Do you think Young Enterprise should become part of the life of the School?

A. It wouldn't work as with volunteers. If it's optional yes.

Q.17. Has it helped you with decision-making?

A. I have to weigh everything up. It's helped me to do that. Decisions have to be made.
Q.18  
Do you agree with the statement that the Young Enterprise Company is as bad as it's worse member?

A.  
It's true to a certain extent because of the disruptive element or lack of attendance, but a few have carried it. As long as the majority are there and know what they're doing, we're O.K.

Q.19  
Would you recommend it to anyone?

A.  
Yes, it's fun. It's enjoyable to do something that has a purpose. It allows you to develop new skills - surveying, talking to people. It helps you to know the structure of a Company, changes the idea of a career, gives enthusiasm and is worthwhile, and if it's a plus on your side, then it's worth doing.
Questions for Understanding Industry Pupils

1. Has U.I. made you more ambitious?
2. Will U.I. help your career prospects?
3. Has U.I. made you more aware of what you want to do?
4. What do you want to do?
5. Why did you join? What did you expect?
6. Do you think that employers will take notice of a U.I. certificate?
7. Has U.I. increased your desire to learn more about industry and commerce?
8. Has U.I. changed your ideas of the world of work?
9. What picture of the world of work has been painted?
10. Do you think that industry and commerce are dull and boring?
11. Is industry/commerce all about strikes?
12. Is industry/commerce all about politics?
13. Is industry/commerce all about people sitting around in offices?
14. Would you like to have had more female speakers?
15. Has the world of work come across too technically?
16. Would you have liked to study certain aspects in more depth?
17. Do you think that the speakers should relate to you more?
18. Should the speakers be trained?
19. Would you have liked to take a more active part?
20. Should you have done some back-up work, e.g. note-taking?
21. Would you like to sit an examination for U.I.?
22. Have you seen/used any course materials?
23. If you had been older would U.I. have had more impact?
24. Is there any work at school which complements U.I.?
25. Is there any point in the U.I. course?
26. What improvements would you make to the course?
27. Would you recommend the course? What would you say?
Appendix 25

Interview with Pupil 2. School 11. - Understanding Industry.

Q.1  Has Understanding Industry made you more ambitious?

A.  No. From the speakers we had, it was a mess-up. It was not interesting. I did not want to set off to industry as a result. Some bits were alright.

Q.2.  Will Understanding Industry help your Career prospects?

A.  Again, because I saw so little of it, it didn't affect me that much.

Q.3.  Has Understanding Industry made you more aware of what you want to do?

A.  I always knew I wanted to do Art. Maybe it's helped. It's helped me realise more possibilities are available in industry for Art, for example, graphics. I didn't realise industry was so far ranging like working on the shop-floor. So there are quite a few areas I could go into with design.

Q.4.  What do you want to do?

A.  I want to go to College to do an Art Course.

Q.5.  Why did you join?

A.  It was compulsory.

Q.5b  What did you expect?

A.  A lot of talk about business figures.

Q.5c  Were you disappointed?

A.  From what I saw, half were o.k. They weren't so based
on the work, the physics behind everything. Some got too much based on the physics and the figures and I didn't understand and lost interest. The man from Firm b was o.k.

Q.6 Do you think employers would take notice of an Understanding Industry Certificate if you were given one?

A. No. I didn't know there was one.

Q.7 Has Understanding Industry increased your desire to learn more about industry and commerce?

A. Yes, I think it could be very interesting, but because we saw so little of the course, I could get to like it better. That is, what they make, how it works. I've only seen the shop-floor and products in the past and this showed what makes it move.

Q.8 Has it changed your ideas about the world of work?

A. Maybe. It's not just people making things. There are more things to do in a big industry. It's very wide ranging.

Q.9 What picture has been painted about the world of work?

A. Offices and calculators. Before, I thought it was working in factories, now it's answering telephones.

Q.10 Do you think that Industry and Commerce are dull and boring?

A. No. It would be very interesting I should think, but from what I saw, it was a bit boring.

Q.11 Do you think industry is all about strikes?

A. No, not at all. Recently, in the media, it gives that impression.
Q.12  Do you think industry is all about politics?

A.  I wouldn't associate politics with industry but I suppose it does play quite a big part, because of strikes, expansion etc. It didn't come across in the course.

Q.13  Is Industry and Commerce about office work and people sitting around?

A.  It strikes me that the organisation side of things is like that. I imagine there's a small proportion who do that compared with the workers.

Q.14  Would you have liked to have had more female speakers?

A.  Yes, that would be quite interesting, to see how females fit into industry.

Q.15  Has the world of work come across too technically?

A.  Yes, from the speakers we had, which was why, for me, it was a bit boring.

Q.16  Would you have liked to study certain aspects in more depth?

A.  I quite liked the advertising side of things. That was interesting - how they sold the products, the design, that sort of thing, and also the buildings.

Q.17  Do you think the speakers should relate to you?

A.  Well the ones that were interesting were the ones who did relate, and covered a wide range instead of just going onto their technicalities. They got a bit tangled up in their technicalities. The ones who understood probably got most out of it.
Q.18 Should speakers be trained?

A. Well, if it's your job and you are interested in the subject, you should have a varied amount of things to say about it. Some went on about one thing all the time instead of varying the things they talked about, so, maybe. Teachers know us better and what we like, etc.

Q.19 Would you have liked to have taken a more active part?

A. It was quite interesting when we were given out sheets to fill in, that's quite interesting. Yes.

Q.20 Should you have done some back-up work, i.e. note taking?

A. No, because the speakers we had gave us a general picture, gave us a general idea. I don't think you could sit down and write. It depends whether you want to go into it or not.

Q.21 Would you like to sit an exam?

A. No. It would have been like Business Studies and Economics, I'm only interested to an extent, not in great detail.

Q.22 Have you seen any course materials or have you used any?

A. No.

Q.23 If you'd been older, would it have had more impact?

A. Maybe, when you're enclosed in a school and not out there you'd probably be more interested after school.

Q.24 Is there any work at school which compliments Understanding Industry?
A. No, instead of concentrating on one area, it broadened your outlook and that could have happened.

Q.25 Is there any point in the Understanding Industry Course?

A. You need to know about industry. After the course, whether you've liked it or not, you've been given a chance. Some would not have thought of going into industry if they hadn't had the course. Some of the science people here thought that.

Q.26 What improvements would you make to it?

A. Improve the system of getting speakers so that they arrive every week. Have better speakers that appeal to everyone, who do not just go on and on about one thing that people don't understand and have more active involvements.

Q.27 Would you recommend the course and what would you say to someone to recommend it?

A. I wouldn't do it again because of the mess-up. It was a good course but it was our bad luck it was disorganised. I would recommend it because I feel people should know about it whether they want to or not, they should have the opportunity. I would tell them it's broader than factories. If you haven't done the course you wouldn't have changed your attitude towards it. I have a wider view now.
Appendix 2b

Attitude Questionnaire for Young Enterprise Groups

School ____________________________________________________________

Name ____________________________________________________________

Company Position _________________________________________________

Date _____________________________________________________________

The following statements, collected from a number of sources, require you to

SA • Strongly agree
A • Agree
NF • Have no feelings either way
D • Disagree
SD • Strongly disagree

To complete:

• Do not think for too long about a statement
• Put one tick only against each statement
• Respond to every statement
• Do not discuss responses, prior to completing the form.

PLEASE ANSWER AS HONESTLY AS YOU CAN

Thank you for your help.
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<th>SA</th>
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<tr>
<td>1. Taking part in young Enterprise complements my 'A' level subjects.</td>
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<td>2. Being involved with Young Enterprise will help me to get a job when I leave school.</td>
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<td>3. Belonging to Young Enterprise has awakened my curiosity about the world of work.</td>
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<td>4. Being part of Young Enterprise will make school seem more worthwhile.</td>
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<td>5. Young Enterprise should highlight differences between managers and employees.</td>
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<td>6. There should be a better relationship created with the advisers of Young Enterprise than with teachers in school.</td>
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<td>7. Young Enterprise board meetings are boring.</td>
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<td>8. There should be no time spent messing about whilst running a company.</td>
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<td>9. Young Enterprise should make me more ambitious.</td>
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<td>10. Young Enterprise helps you to learn more about yourself.</td>
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<td>11. I joined Young Enterprise because my friends did.</td>
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<td>12. Young Enterprise will not help me to get a job when I leave school.</td>
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<td>13. If asked to do Young Enterprise again, I would jump at the opportunity.</td>
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<td>14. Through Young Enterprise, theory will be seen in practice.</td>
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<td>15. Young Enterprise should improve my chances of achieving my career ambition.</td>
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<td>16. Young Enterprise should provide a good insight into how a Company works from the roots upwards.</td>
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<td>17. People should learn to respect one another when running a Company.</td>
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<td>18. Board meetings are stimulating occasions.</td>
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<td>19. I would not recommend Young Enterprise to anyone.</td>
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<td>20. I joined Young Enterprise because I was impressed with the previous year's performance.</td>
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<td>21. If asked to join Young Enterprise again, I would think twice.</td>
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<td>22. Young Enterprise has changed my mind about courses I could follow after leaving school.</td>
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<td>23. Young Enterprise gives a taste of what work is all about.</td>
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<td>24. Young Enterprise should become part of the life of the school.</td>
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<td>25. Young Enterprise does not give an accurate idea of how a Company functions.</td>
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<td>26. My own ability to make decisions has improved since I joined Young Enterprise.</td>
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<td>27. Young Enterprise should become a great social occasion every week.</td>
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<td>28. Respect for each other can be lost when working together as a team.</td>
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<td>29. The Young Enterprise Company is as bad as its worst member.</td>
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<td>30. I joined Young Enterprise because I wanted to be involved with something successful.</td>
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<td>31. Young Enterprise has not helped to give a real picture of the world of work.</td>
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<td>32. Running our own Company should not highlight differences between managers and employees.</td>
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<td>33. Industry and commerce are now more real as a result of my belonging to Young Enterprise.</td>
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<td>34. Workers in Young Enterprise should not be pushed around.</td>
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<td>35. Young Enterprise should be recommended to everyone.</td>
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ATTITUDE QUESTIONNAIRE FOR UNDERSTANDING INDUSTRY GROUPS

The following statements, collected from a number of sources, require you to:

SA  Strongly agree
A   Agree
NF  Have no feelings either way
D   Disagree
SD  Strongly disagree

To complete:
. Do not think for too long about a statement
. Put one tick only against each statement
. Respond to every statement
. Do not discuss responses, prior to completing the form

PLEASE ANSWER AS HONESTLY AS YOU CAN

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<tbody>
<tr>
<td>1. Attending an Understanding Industry Course should help with future career prospects.</td>
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<td>2. I have no real desire to team more about industry and commerce.</td>
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<td>3. Industry and commerce are not all about strikes.</td>
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<td>4. Industry and commerce are too technical for the likes of me!</td>
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<td>5. Understanding Industry should make me more aware of career opportunities.</td>
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<td>6. More female speakers should come to speak to us in Understanding Industry lessons.</td>
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<td>7. The speakers for Understanding Industry should be able to relate to us.</td>
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<td>8. If I were older, I would appreciate Understanding Industry more.</td>
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<td>9. We should do some back-up work for the Understanding Industry course.</td>
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<td>10. I would not like to sit an examination for Understanding Industry.</td>
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<td>11. Taking part in Understanding Industry complements my subjects studied at school.</td>
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12. Understanding Industry should make me more ambitious.

13. A prospective employer will take no notice of an Understanding Industry attendance certificate.

14. The Understanding Industry course should change my ideas about industry and commerce, for the better.

15. The world of industry and commerce is not a political battlefield.

16. Industry and commerce are about people sitting in offices, doing office work.

17. Industry and commerce are dull and boring.

18. Speakers for Understanding Industry should be trained to speak to us.

19. We should be asked to take a more active part in Understanding Industry talks.

20. The atmosphere would be more disciplined if we took notes during an Understanding Industry lesson.

21. There isn't really much point in the Understanding Industry Course.

22. I joined Understanding Industry to learn more about industry and commerce.
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<tr>
<td><strong>23.</strong> A prospective employer should be impressed by an <strong>Understanding Industry</strong> attendance certificate.</td>
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<td><strong>24.</strong> Understanding Industry does not relate to any subjects I study at school.</td>
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<td><strong>25.</strong> Understanding Industry should open my eyes to the technical aspects of industry and commerce.</td>
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<td><strong>26.</strong> Industry and commerce are not as dull and boring as I suspected they might be.</td>
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<td><strong>27.</strong> Industry and commerce are a lot more interesting when studied in depth.</td>
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<td><strong>28.</strong> Understanding Industry conjures up a picture of dirty shop floors.</td>
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<td><strong>29.</strong> Understanding Industry could turn me against a career in industry or commerce.</td>
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<td><strong>30.</strong> I switch off if Understanding Industry speakers are dull.</td>
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<td><strong>31.</strong> There should be an examination at the end of the Understanding Industry course.</td>
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<td><strong>32.</strong> I am at the right age to follow an Understanding Industry course.</td>
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4th March 1985

Dear ,

As you will be aware, I am researching into agencies attempting to foster school - world of work links, and am using Matravers as a case study school.

I am aiming to talk to all the staff, and hope it will convenient to talk with you for approximately 10 - 15 minutes in the next few weeks.

Would you please indicate 5 separate times when you are free for the short period I suggest, in order that I can arrange an appointment with you as soon as possible.

I hope to collect your reply from the school office on Thursday 14th. March and look forward to meeting you.

Yours sincerely,

Pat. Weslake - Hill

I hope to be free at the following times during any week.

1. ...........................
2. ...........................
3. ...........................
4. ...........................
5. ...........................

Name: ........................... (Please print)
Department: ...........................
INTERVIEW QUESTIONS FOR STAFF AT CASE STUDY SCHOOL.

1. How do you perceive the policy of the school regarding preparation for the world of work?

2. What do you think of the situation regarding policy which exists?

3. What are your own views concerning preparation of young people for the world of work?

4. How is your teaching influenced?

5. In the last five years have you been under any pressure to change?

6. What is your knowledge and opinion of: Young Enterprise; Understanding Industry; Industry Awareness; The County Industry-Education Work; SCIP; EPRAB?

7. Do any of the ideas suggested by the above, pervade your teaching?

8. Would you like to make a general comment on the process of curriculum development in the school?
Interview with Teacher no.3. Case Study School no.33.

Q.1 How do you perceive the policy of the school regarding preparation for the World of Work?

A. There's no policy in general. It's done by one or two people only in the school with little consultation with the people who teach the children. No feedback unless you ask for it. It's rather haphazard.

Q.2 What do you think of the situation regarding policy which exists?

A. I think there should be an ethos. I set up a Work Experience Course for the fifth years in my last school but here they send pupils out for specific jobs.

Q.3 What are your own views concerning preparation of Young People for the World of Work?

A. My philosophy is that it should be an extension of their education rather than "let's get the kids out to give them some experience of work, because it's good for them". No-one's proved to me that it is good for them. It's useful for job-seeking. I get children coming back complaining. It's good experience for children who want to go into that type of manual work, but I don't think it's the job of the school. I think the kids should be put in job situations for two or three weeks and into all departments. For example, in Andover they went to a Bank, and saw every working aspect of the bank. They had an idea of the World of Work. Education should be saying this is what work is about.

Q.4 How is your teaching influenced?
It's difficult. As head of Fifth, I'm concerned about the development of my pupils. I've worked in industry myself. I can relate this. I teach physics. I'm a bit of a traditionalist. I tell them they have to be more disciplined. My own experience has influenced me. My teaching philosophy is I can't believe you can teach by experience. You have to give basic facts. I teach the discovery approach. I have a goal in mind.

Q.5. In the last five years, have you been under any pressure to change?

A. No, the only pressure has been an increase from parents. CSE's are needed in order to get a job. There are exam pressures. This is still a basic 3 'R's' area. This is a parochial area. There's a great suspicion of Careers, or Social Ed. Kids out of School for some reason.

Q.6. What is your knowledge and opinion of Young Enterprise?

A. I've not been invited to go to any presentations. This year I want to go. I think it's been Empire Building in many respects. I feel slightly grieved about it. I'd have liked to have been more involved in it. I've made it my business to find out what it's about. It should have been rather less of me sticking my nose in and having to ask kids, I should have been invited. The impression varies from year to year. This year they didn't have the maturity, from an adult point of view. I don't know how the Industry reps. guide them. They were somewhat jaded this year. Most seem to enjoy it. Whether they get anything out of it, - it's more an exercise in confidence building.

Q.6b Understanding Industry?
A. I know absolutely nothing about it whatsoever, except that it takes great chunks of kids out of my Social Ed. I don't know what the content is, but the kids say "boring". The Understanding Industry Certificate does not come up often. I've checked the fifth year sheets, it's not on personal records, but after me, they'll go to the Head, he may enter them. If tutors are conscientious, they may add that on. I could look at the end. C. I know, goes through these at the end and enters Young Enterprise. It's the tutors responsibility but they have limited knowledge.

Q.6c Industry Awareness?
A. No.

Q.6d Schools Curriculum Industry Project?
A. I've heard of it.

Q.6e Work?
A. I know a little. I was sent to for a Careers Course a few years ago, but it couldn't run properly so it was switched to . gave us an idea of how it was organised. I came back full of enthusiasm and the next thing I know C was in charge of . That's the last I've heard of it.

Q.7. Do any of the ideas suggested by the above, pervade your teaching?
A. Have they had any impact on the school? I think that their standing is pretty low. We're still doing the
3 'R's' and we're still parochial. Social Ed. is a bit of a laugh again. People who do Young Enterprise see it as extra-curriculum which might be useful. I don't see them seeing it as leading on to better things. In Social Ed. I don't think there's much on the World of Work. It's a bit of a joke. Truancy on a Thursday afternoon is fantastic. Those who go on to work are those with relatives so they don't want help, their work pattern is cut out for them. Unemployment doesn't affect us, most get jobs. Social Ed., is a bit of a joke. It's treated with suspicion. I was involved with Careers Education here at first. The Senior Master was Head of Fifth and he was in charge of Careers then. I came along and he kept Careers. I do Further Education entrance because of the work load, the Senior Master does work applications. I'm more concerned with Further Education and Higher Education, I know that Sc.31 are quite impressed with kids from our school, one of ours became M.D. at Sc.31 last year, and won it.
Interview with Teacher 41. School 33. - Industry Awareness Teacher.  
(Also Teacher C - Young Enterprise)

Q.1.
How do you perceive the policy of the school regarding preparation for the World of Work?

A.
It's developing. Now there's the beginning of a policy, although, there's nothing in writing. There's a greater awareness that there was. To this end I run a Staff Meeting when I talked generally about school/industry links. To introduce the idea to the whole staff, I ran three discussion groups with staff. The Head is very much in favour. He's extremely keen. With the Industry Awareness Course there's some effect on the Curriculum, but unfortunately, we don't have a laid-down policy which I think is a shame, because it often makes an idea more concrete if you say "Well, this is our policy I think we ought to achieve". The chances are that something will come up as a result of the Curriculum Group, of which I'm a member. Something to do with industrial policy could come up there but this has not been discussed.

Q.2
What do you think of the situation regarding policy which exists?

A.
It's very important that we have an industrial input of content to what we do, which is not in terms of vocational preparation, because I think they're two entirely different things, and I think the idea of having a policy where all sorts of aspects of education are looked at like multi-cultural education, and industrial awareness, that sort of area, should be brought more into our general Curriculum teaching, rather than having it as special on the fringes as
if that is not important. The Curriculum Group are looking at the first year curriculum at the moment. It's very specific.

Q.3 What are your own views concerning preparation of Young People for the World of Work?

A. See above.

Q.4 How is your teaching influenced?

A. Extremely. Yes, very much so. People in the Curriculum Meetings are beginning to talk about experimental learning techniques, games and simulations. A lot of the ground work for that came from SCIP, whether they know it or not, so there is an awareness coming in. Obviously it's affected my own teaching in that the Industry Awareness teaching is based on the SCIP ethos. It has to be experiential, fun, with active participation rather than learning about things. This is having a link through to my Art now. They seemed to be very separate areas to begin with.

Q.4b How much has SCIP influence come through?

A. With me, personally, 100%. I would not have heard of SCIP without . Having attended a SCIP Regional Conference in the Midlands - that really did bring it very much to the fore. I've had SCIP papers come through as a result of it. School 33 was not a SCIP school. I went to the Conference slightly under false pretences. I was trying to teach in the SCIP way without realising it, and I was asked to run one of my simulations.
Q.4c Have many teachers the awareness, attempting to teach in the SCIP way without realising it?

A. Oh, absolutely. No doubt. A case in point in this school is that in the History teaching that Teacher 2 does, she is very much involved with role-play and simulation. I don't know whether she's even heard of SCIP, she many have done but she teaches in the SCIP way.

Q.4d How is the Industry Awareness Course organized?

A. The Industry Awareness Course as part of the Social Education programme, is for all fourth and fifth years. It's on a Circus basis and each group I have once a fortnight, between four to six sessions. There are about eight groups. The only ones who are not involved this year are some of the fifth years who are the Understanding Industry Group. For the first time this year they are being kept as a separate group out of the Social Education programme. The Head is working with them for one session and they join the Circus for the other sessions.

Q.5 In the last five years have you been under any pressure to change?

A. Within Art no. Although the idea is getting through, e.g. talking to the Design Teacher about textiles. We did teach using an industrial base e.g. teaching package design. We taught it as Artists without realising the industrial context, whereas now we think of the industrial context.

Q.5b How did Industry Awareness develop?

A. It arose through my going on a CRAC Insight Course
which the Head sent me on, I had no idea why he sent me on it. I enjoyed it thoroughly and I thought there's loads of potential here for doing something interesting and different, and at the beginning of the next academic year he asked if I would join the Social Education team, and I was given a free hand to develop the sort of Course I wanted. It obviously needed someone else to teach it besides myself so the Head also got involved the following year. I spent quite a lot of time in the summer holidays discussing with him what he wanted to do and now, of course, I teach it in both fourth and fifth years, and he has his Understanding Industry. CRAC originally came through Conk, because — organised it. That was when I first met — and heard of — , two and a half years ago.

Q.6

Obviously I've interviewed you before about your knowledge and opinions of Young Enterprise which you run, but what do you know and think of Understanding Industry?

A.

Well, the first problem is that I've never attended any of the sessions. I'm always time-tabled to teach when it's on. I get feedback from the pupils about what happens so I can't say I've got a global view of the thing at all. I haven't. The M.D. for Young Enterprise shows me the brochures they get each time. The only thing that bothers me is the times that the word "boring" occurs. Though occasionally they get speakers who are stimulating. It's outside the hands of the Head, the ability of the speakers, because of their lack of training. On the school, it's not having an impact. On individual pupils; it has strong impact on them. I think very much it's linked with
Young Enterprise. Only the 'A' Band did Understanding Industry and any 'B' Band people who wanted to do Young Enterprise did not. It wasn't in the ethos. Once the Industry Awareness got off the ground, we're now starting to get 'B' Band pupils wanting to get involved e.g. Jonathan Neville.

Q.6b Has Industry Awareness affected the type of pupils who are coming?

A. To a small extent. Young Enterprise isn't exclusively 'A' Band type pupils now. I hope it will have an on-going effect over the years.

Q.6c What about the Schools Curriculum Industry Project and CRAC?

A. Only to the extent that I don't know much about CRAC. The games and simulations they offer I use very much in my industry programme. I use them in terms of their resources rather than the ethos. I use their five simple business games but SCIP seems more of an ethos and less a bank of material, and therefore, affecting teaching, SCIP has more stronger effect. They balance each other.

Q.7 How do these Agencies affect your teaching?

A. Well, the problem with SCIP is that it doesn't offer us any resources. The resources are often not geared to the age group and ability range of the pupils I want to use it with. One non-CRAC thing I use is the Bradford Game which is not geared to low stress fourth years, so we've adapted it to make it work. I also use simulations out of books - the Understanding Industry book published by Butterworth, and I use TUC Case Studies. You have to be very selective. Time limits, and the children limit too.
Interview with Teacher no. 44. Case Study School no. 33

Q.1. How do you perceive the policy of the school regarding preparation for the World of Work?

A. There may be a written policy somewhere which I haven't read. There are various County policies that I am not 'au fait' with, because I've simply had no time to read them. The Curriculum Development Committee developments outlines what the curriculum should consist of.

Q.2. What do you think of the situation regarding policy which exists?

A. Well, my view is that preparation for the World of Work is part and parcel of the curriculum anyway. I think it's the Head's view too. I don't view the job I do as imparting chemical knowledge. It's under 50%.

Q.3. What are your own views concerning preparation of Young People for the World of Work?

A. Well, the day to day workings I work according to my own opinion, but if I was doing something outside the mainstream of thought, it would soon get noticed. I don't stray too far from his ideals.

Q.4. How is your teaching influenced?

A. Personal relationships. I lay great stress on the way pupils interact. The responsibilities, decision making, It's begun to affect my teaching methods. As I've
relaxed more into what I'm doing, I look at things more broadly, vary methods a lot and give them the decisions to make.

Q.5. In the last five years, have you been under any pressure to change?

A. Only in the sense that I'm more relaxed and skilled in my subject. So that doesn't require as much thought now. I'm more aware of other things now.

Q.6. What is your knowledge and opinion of Young Enterprise?

A. I know they come around and sell you things. I'm not in agreement with it in that I don't think that the World of Business is the World of Work, and I don't agree with the ideals which might be incurred in having to set up a business. Let's face it, a Businessman may run the country but they are not most of who we are. It's political. I have doubts as to the legitimacy of Young Enterprise. I don't mean that Political Parties are infiltrating schools but it's stressing the right-wing effect. Competitive. Do people down to make money. Making money doesn't relate to life, it's a pretty secondary consideration. It gives a false impression of what the World outside the school provides. Half their time is a World of Work if they're lucky. Leisure is very important.

Q.6b. Understanding Industry?

A. No. I've only met it in passing. Is that what C is doing?

Q.6c Industry Awareness?

A. I know she's been seconded. I haven't been able to attend the Curriculum Development meetings because
of Union action. There's a biased development on Committees when Union members are not attending. It's not a fair thing. I think it's narrow-minded of the Head to have meetings while this is going on.

Q.6d. **Schools Curriculum Industry Project?**

A. No.

Q.6e **Country X Industry Education work?**

A. I've heard of it.

Q.7. **Do any of the ideas suggested by the above, pervade your teaching?**

A. Well, role-play is used in Biology - the teaching of genetics. We use card games, the ASE booklet. The whole of my teaching is simulation, presenting models but not involving people. There may be more scope in Biology. Chemistry is a little remote.

Q.8. **Would you like to make a general comment on the process of Curriculum Development in the School?**

A. If people offered to give me a hand, but the move would have to come from them. I haven't the time to go out to them all.
Interview Schedule for Parents - Case Study School

1. What is your view concerning pupils' preparation for life after school?

2. Do you think that any of the school's activities in this field could be improved?

3. How many children have you had at the school? At what stage are they now? Have you received any direct feedback from them?

4. What careers do your children intend to follow?

5. Has the home or the school had the most influence on Career decision?

6. Have you heard of: Young Enterprise, Understanding Industry, the Schools' Curriculum Industry Project, Industry Awareness?

7. Has a particular teacher helped more than most?

8. Have you come into contact with YTS or the School Leavers' Certificate?

9. Has the PTA had a great influence in the area of curriculum development?

10. Have you any strong political convictions which may influence your thinking?
Interview with Parent no. 4. (One child in Third Year and one Child in the Fifth Year).

Q.1. What is your view concerning pupils' preparation for life after school?

A. I think my view would be theory rather than practical. Some of the things they are not doing is instilling the right attitudes as opposed to what they teach. Emphasis on things that employers look for - neatness, time-keeping, attitudes, could be sharpened up. It's a two-way process, it's needed in the home as well. Probably why they fail so desperately. All through Primary they have content and ideas versus presentation. Too often my kid's stuff is 'A's yet it falls down on presentation. We, the Head and I, are almost diametrically opposed on almost everything. I think they ought to know about the selection process of interviews, letter writing, and application forms.

Q.2. Do you think that any of the schools' activities in this field could be improved?

A. Well the work they do is not part of the whole process. For instance, neat handwriting is necessary for one lesson but not another and this should be improved. There should be a general attitude rather than turning it on for particular lessons. It's the norm, not to correct.

Q.3. How many children have you had at the school? At what stage are they now and have you received any direct feedback from them?

A. I have two, one in the third and one in the fifth. There is feedback from the elder one, yes, because he's quite friendly, but the other, in the third,
'R' is a bit disillusioned with the World of Work - he's finding it easier than he thought it would be. If the school is making him think it's difficult, or me, I don't know, probably me.

Q.4. What Careers do your children intend to follow?

A. 'R' wants to do Pathology at F.E. College - doing a Tech. Diploma, and the other one is a bit young to tell.

Q.5. Has the home or the school had the more influence?

A. Well, 'R' enjoyed the U.I., the Understanding Industry Course and discussed that. I've taken a lot of interest in them. Judging by other children in the street, three of them haven't even got ITS, but 'R' has a Summer job. Now is that school or parental influence? I've had more influence than the school, but I've expected to have had. My responsibility is to prepare them for life, and I think the school should concentrate on the academic subjects.

Q.6. Have you heard of Young Enterprise?

A. Yes, 'R' enjoyed it greatly. He liked listening to the speakers.

Q.6b Is that Young Enterprise or Understanding Industry?

A. Ah, it's Understanding Industry. He wasn't able to join Young Enterprise, he had outside commitments, and he didn't show interest in joining.

Q.6c What about Understanding Industry?

A. One of the extra-curricula activities that he did not
approach with "Oh, what a bore!". He came home and talked about how much fun it was. He gained quite a bit from that.

Q.6d. What about Young Enterprise then?

A. Well, quite a few, I would imagine would be quite interested in it. 'R' has had work experience - part-time, outside school.

Q.6e Have you heard of SCIP?

A. No.

Q.6f. Have you heard of Industry Awareness?

A. No. Mmm - yes, he went to C but there was no particular feedback.

Q.7. Has a particular teacher helped more than most?

A. Oh yes, if I could choose fifteen, they'd both get 'O' levels with no problem. They're teachers who are interested in their own subjects and they instill the hard work ethic. i.e. the Head of Rural Studies, the Head of English the Head of Science. My boys have responded more to those than the other teachers who take 'fun' subjects. So there are several teachers who are gifted, disciplined, who give the greatest quantity of homework. That's where the boys' successes have been.

Q.8. Have you come in contact with YTS or the Leavers Certificate?

A. YTS. He's got all that from the Careers Lessons. The
Senior Mistress played some games with them and he came out with Science as his Career. Mr. P-- told 'R' about the Technical Diploma of Science. No, he didn't go on work experience, he wasn't offered it. The Leavers Certificate - he's got that. It's a four page thing will all 'A's on it. Not as useful as some. It came from Tutor Time. 'R' considers it an achievement but he hasn't used it yet. He has had three part-time jobs.

Q.9. Has the PTA had a great influence in the area of curriculum development?

A. The PTA? - No. I think it ought to have a much larger body of Governors or Parents involved in a lot of these things, to include not only the Landed Gentry and political activists but employers. There are moves forward, e.g. the Governors make-up has been changed to include a different number of people, of varying interests.

Q.10 Have you had any strong political convictions which may have influenced you?

A. Well, anyone listening to me would know that I take the Conservative leaning, but I'm not sure that's true of education. I think the concept of Comprehensive Education is ideal. In practice it's abysmal. It's like all Socialist ideas, they're all excellent but they can't be put into practice.
Interview questions for the Chairman of the School Governors

1. What are the occupations of the school Governors?

2. Is there any political emphasis during meetings?

3. Do you think that the school has a definite policy towards preparation for the World of Work?

4. Are the Governors instrumental in developing the curriculum along these lines?

5. Can more be done?

6. Do you have a personal view about school–World of Work links?

7. How often do the Governors meet?

8. Have you noticed any pressure put on you in the last 5 years to change the curriculum?

9. What do you know of: YE, UI, Industry Awareness, SCIP?

10. Would you look favourably on someone with an industrial background whilst interviewing for new staff?

11. Would you like to raise any other points?
Interview with the Chairman of the School Governors (untaped)

1. What are the occupations of the school Governors?
Some are parents (one is a nurse), local businessmen, there are a certain number of councillors.

2. Is there any political emphasis during meetings?
No, not at all.

3. Do you think that the school has a definite policy towards preparation for the world of work?
It does a good work, they are very keen, but I don't know if it has a policy written down.

4. Are the Governors instrumental in developing the curriculum along these lines?
The Governors are most concerned with the school playing fields and the school buildings. These are the matters which concern us most often.

5. Can more be done? (For curriculum development).
Not really, the teachers are constrained by all sorts of things.

6. Do you have a personal view about school/world of work links?
Yes, it is necessary to prepare a child to make a career decision, particularly in this day and age. The school prepares pupils well, although it is limited due to lack of a Sixth form and its future is tenuous.

7. How often do the Governors meet?
We can go in whenever we like, and I am called to do so, as Chairman. We meet regularly, and whenever appointments are to be made.

8. Have you noticed any pressure put on you in the last 5 years, to change the curriculum?
Not personally, no.

9. What do you know of: Young Enterprise, Understanding Industry, SCIP, Industry Awareness, the County Industry-Education Work?
Nothing
10. Would you look favourably on someone with an industrial background whilst interviewing for new staff?

I'd be interested in them, but it's educational competence that we would look for.

11. Would you like to raise any other points?

Only that the school is restricted by its lack of Sixth form image.
1. What do you perceive the policy of the school to be concerning school-work links?

2. What is your own policy/philosophy of school-work preparation?

3. Has your thinking changed in the last 5 years?
   If so, in what way, and how have you been influenced?

4. Could you comment on the following in the school?
   - YTS YE UI SCIP  CRAC Industry Awareness, the Leavers' Certificate
   - Work Experience, City and Guilds, JIIG CAL, interviews, job finding.

5. What links do you have with staff?

6. How do you perceive your role in the school?

7. Do you see aspects of your role affecting curriculum development?

* Industry Education Work in County X
Appendix 37

Interview with County Careers Officer. County: X. Case Study School.

Q.1a How long have you been associated with the School?
A. I've been working in the post for two and a half years, and I've had eight terms at Sc.33.

Q.1b What do you perceive the policy of the school to be concerning School/Work links?
A. In a sense they have a very good attitude to employ industry liaison. W-- tends to be self-contained and parochial. Unemployment is no worse, maybe better than other schools in our area. They're very active. As active as they possibly can be. They put a lot of people out on Work Experience. What worries me about that is the quality of the Work Experience and the quality of the placements provided.

Q.2. What is your own policy or philosophy of School/Work preparation?
A. It's difficult. It integrates in terms of the curriculum which is something I'm not happy about, at the school and which I'm having discussions with the Head about. To categorise myself, I'm a developmentalist. I believe there are stages young people have to go through before they decide what they want to do. The thing that worries me about the place is that in a sense it sometimes in the order it shouldn't happen. One of the problems is the split timetable and a strange half-yearly system for Social and Personal Education. Half of the School is doing one thing and half another thing, e.g. JIICGAL and Work Experience doing things at the same time. Individuals are at different stages depending on the SPE slot they fit into. The process the kids
need to go through should cover decision-making, awareness of themselves and the adult world. In some schools there is over-concentration on YTS, or work, and these are only options. More focus on the self-exploration to begin with, work experience etc., in order to reach a decision.

Q.3. Has your thinking changed in the last five years and, if so, how have you been influenced?

A. I don't think it has fundamentally, slightly, having moved from the Midlands where there was unemployment - I suffered myself. It's slightly easier here; you can get jobs and young people can get the ones that they want. I can show you the figures for the County and West of the County compared with the County. We have Careers Offices in sub-areas, Wa-- and D-- and they're open 2½ days per week. Also, in W-- we run one in the Summer and at B-- in the past, but the centre is in T-- so in W-- there is no permanent presence in the town. In West of the County anyway there is no one area of great population. In October or November, subsequent to the pupils leaving, we do a survey on their destinations, about 7% are unknowns. Some go to the Job Centre; our links with those are quite good, they send some to our sub-Offices but some get lost on the way. Others tend to get jobs and have no contact with the Careers Service.

Q.3b What contact do you have with the pupils?

A. I don't see all of the year group. I meet them in Social and Personal Education but I never get around all the groups in the time. Last year I did about 50% at the end of the fourth year. We don't blank interview in the County, we have a selective interview policy. At the most I'd see about 50%. They hear of
us through various means, we send out a booklet before they leave, also a letter for sub-offices etc. We have a client file on computer.

Q.3c. How do you decide when a pupil is to be seen?

A. I'm working on this at the moment. It's been voiced at the school. It's been voiced that the school uses tutor time. The ideal situation is Careers within SPE integrated, plus one period of tutor time per week, and it's possible that SPE should be in tutor time with the tutor because the tutor has the best relationship with the pupil. Any specialist help can be brought in in this time. It's working to various degrees in various schools and then there would be a referral system, with an individual approaching the tutor. In the County we have a policy, we have a time-allocation to spend 50% pre-16 and 50% of our time post-16. The move is to develop guidance methods in schools to a greater degree so that we can spend more time with the post-16 age group because with CPVE, TVEI, YTS, decisions are being delayed for some pupils.

Q.3d. In this school?

A. That's one of the difficulties, because it's an 11-16 school, so no continuous link with the sixth form is a problem. We all have our own opinions of the County Policy and it's being carried out to varying degrees. Some think we're a school-based service and should remain so. In the school it doesn't work this way. Because of the split with SPE and Careers within it, the ten-day time-table, the half-term split for SPE, no tutor time, the tutors still refer people to me and individuals as to see me, and the more effective you've
been, the more work you create. The ones coming through at the moment are the ones coming through from the Careers teacher from Careers lessons. The referal system is not as good as it should be.

Q.3e Do you have any contact with Parents?

A. Well, the parents sit in at interviews. It attempt to attend parents evenings, but not PTA Meetings, perhaps I should. For instance, in one school there was a Parents Course for four evening for the third and fourth form parents, when I introduced them to JILGAL and Careers. I can show you details of the Course. I hope to implement that at the Case Study School. There isn't a Careers Convention every year because of the time available and the cost. It is expensive to set up.

Q.4. Could you comment on the following: YTS?

A. We have a Fair every year. I give a Staff Presentation about YTS quite early on, but there was a lack of information prepared. There was an open invite to staff, mostly fourth and fifth year tutors, and a few others came. The problem is that the YTS information is not being conveyed back to teachers in the school. I suspect not a great deal is relayed. I organised regular meetings with teachers but it was hit by the teachers dispute. I began that just before the dispute.

Q.4a Are some suspicious of YTS?

A. Some are. Looking at the schools the kids at the school we are talking about are far more 'au fait' with YTS. They consider it as a realistic option,
they're keen. It's a reasonably well regarded option given its faults. Numbers in West of the County last year: 20% went on YTS and in the Case Study School 24%. 25% returned to school and that's low, but that's because there's no pull of the sixth form.

Q.4b What do you know of Young Enterprise?

A. I don't know a great deal about it. Yes, they do mention it in a positive way during interviews, I regard it as a pro. A number have mentioned it in very positive way, but I haven't got involved with it because I have other priorities.

Q.4c. What do you know of: Understanding Industry?

A. No, it does not come across.

Q.4d. What do you know of: Schools' Curriculum Industry Project?

A. No.

Q.4e What do you know of: County X Industry Education Work

A. Yes. We link, only occasionally. We meet --- and discuss what's going on. The work experience policy that's just come out is — linked in that sense, yes.

Q.4f Could you comment on Work Experience?

A. When we visit employers, we ask will they take pupils on Work Experience and feed that back into schools, but that's the extent of our involvement.

Q.4g Careers Research Advisory Centre?
A. Yes, the school uses CRAC. The role I have means I don't need to use them.

Q.4h. The Industry Awareness Course?

A. It's something you pick up from the kids. You can tell they've done it although they never mention it, in context. There are places in the year that you become aware they've just done it, by discussing with them. It comes out in a number of ways, e.g. attitudes to work, etc. After about 20 minutes, you find out they've done Work Experience.

Q.4i Are you linking Work Experience with Industry Awareness?

A. Well, I don't think you can separate them.

Q.4j(1) The Leaver's Certificate?

A. I know nothing of it, I have not seen it. Work Experience is left to the school because you can get too involved in it otherwise. I've seen it take over.

Q.4j(2) Would Project Trident be useful?

A. I don't know how useful that would be. Basically schools tend to do their own things. One school is about to start Work Experience, I've just moved out of that school. The Head is keen to push it but the Careers Teacher is no.

Q.4k City and Guilds?

A. I don't have contact with it. It comes out in interviews
the 365 Course. I've only discussed it briefly with the Careers Teacher, linking it with CPVE etc. It's beginning to get difficult knowing what kids are doing what.

Q.4k(1) JIIGCAL?

A. The school took it on board last year and covered 50% of kids, this year they hope to do all.

Q.4k(2) Is there anything printed - results for the School?

A. No. The Adviser prints are for each individual. There's a batch status report, but it only records where there is a problem, i.e. if a person is inconsistent with their answers etc. JIIGCAL is in two parts, one is an interest profile and the second a job list and is about decision making. We've done some audience research, I can give you a copy of the questionnaire. We've done it with the fourth year in the Case Study School, the first part of JIIGCAL and then the second part we do in the fifth year during SPE. In the School there are three trained administrators and one is on a Course today. A programme of five hours has to be gone through, getting people to think about themselves. When done properly, it can take up a whole section of the SPE Course, because it's blanket coverage, preparations should be done in terms of decision making, not JIIGCAL. In the School it's not being done at all well. It should be given a chance. The young people who did it seemed better prepared than those who didn't but it's not being properly done. I could inform my Senior Careers people about it or I could pull it out of the school. I don't want to pull it out because the Careers Teacher doesn't like it and
there would be nothing to take its place and it's better than nothing at all. Also, there's someone coming through the system who's very keen on it and it could be done in a far more structured way. We spent a day talking to the Head, meeting with the member of staff who's keen and with the Chief Education Officer.

Q.4k(3) When do you hold your interviews?

A. After JIIGCAL has been administrated.

Q.5a Do you see the School as a job-finding body, or does Careers Education have a wider base?

A. Oh, it's job-finding. I met fourth-years and most looked blank when I mentioned Careers Education.

Q.5b Is it about finding a Career?

A. I don't think it's Careers Education. Looking at what they do in SPE it sounds good on paper but they should do some market research themselves because I don't think it's coming off with the kids. As far as getting jobs is concerned, the school is doing a good job.

Q.6a What links do you have with the Staff?

A. I link with the Senior Mistress, the Senior Master, someone in the ESN Unit, a Head of fifth year, fifth year tutors to a lesser extent, a member of Staff who's keen on JIIGCAL, I'm trying to get meetings with tutors which I'm trying to develop but the problem is the hierarchy. We're a service in schools. What
we want to do and what we can do are different things. There are certain levels of empire building in schools. If we say "Others should be involved" or "Decentralise" they panic. What they don't see is that you can still be Head of Careers and do a more effective job, co-ordinating.

Q. 6b

How do you perceive your role in the School?

A.

Well, as I want it to be. To set up a team of people that have responsibility, not just with Careers, something broader than that. e.g. Careers Education is a process you go through to reach a decision. It's broader than that as many decisions have to be made, e.g. teachers, tutors, Careers teachers, Head of Year, all want to be involved in that the guidance of young people is broader, better. Then, I see it to facilitate communication in schools. A lot of stuff which should be passed down to teachers, isn't. One member of staff says we have a problem of communication - I couldn't agree more. Different people could be of use, - some problems are not my patch. e.g. A girl in another school - I spent seven hours talking to her to solve her problem, then I had to talk to others to convince them it was a problem!

Q. 7

Do you see aspects of your role affecting Curriculum Development?

A.

I would like to but there are a number of structures in the way. One problem I'm faced with, Three years before I arrived, they had a different Careers Officer every year in the school. I had to introduce myself and an early comment was "How long are you going to be with us?". Then I had to establish credibility by interviewing and helping. There are attitudes that exist with
the Staff that come across strongly, e.g. "We're here to do this and no more" - "we don't want to do things because of time". Some are anxious- confidence wise, and then there's hierarchy problems. I visit the school one and a half days a week in an advisory role. One Careers Officer was told "what are you doing? You'll be altering the time-table next", to which he replied "Good". I'm sure there are teachers who think it's wrong.
INTERVIEWS WITH LOCAL BUSINESSMEN/INDUSTRIALISTS ASSOCIATED WITH THE CASE STUDY SCHOOL.

1. Have you a history of links with the school?
   
   How was your first contact made?
   
   How have the links developed?

2. Do you consider that the school has a definite policy for preparing pupils for life after school?

3. Do you have a view about this policy? What are your own views?

4. How much contact do you have with the teachers? Do you refer back to the school?

5. What role do you have in helping these pupils?

6. What do you expect the pupils to gain?

7. Do you maintain contact with the pupils, perhaps providing them with jobs, YTS places in the future?

Any other comments.
Interview with Work Experience Employer no.1. School 33.

Q.1a Have you a history of links with the school?

A. Not a history as such, they approached us two years ago and said "would we be interested in taking some lads on", and we said "yes, that'll be fine, we'll give it a try". At the time we were thinking of taking trainees anyway, and we thought if we had some school lads it would give us a chance to assess who was any good or who wasn't. That worked quite well and we've done it each year since.

Q.1b Did they make the first contact?

A. Yes, they did.

Q.1c Who was the person who did that?

A. Mr. P— was the Work Experience chap.

Q.1d Have links developed since then?

A. Well, each year we've had them, we've taken on two lads and we've just taken another two on. The ones we're taking now are a couple who came on the last Work Experience, so from that point of view it's good for them and good for us.

Q.1e Do you see the School's role as a job-finding role? Are the lads who come to you particularly orientated to this type of work?

A. The first lot we had weren't. I don't know how they pick them, the first set weren't particularly
encouraging really. They didn't seem to have a
great deal of interest and they weren't really
g geared up to what we were doing at all. We had
a word with Mr. P after that and he said "we'll
have a look next time". The next lot were more
g geared to this trade, they'd done Woodwork and
Metalwork, much what we do and they were far better.

Q.2. Do you think the school has a policy towards
preparing pupils for the World of Work?

A. It's difficult. Yes. They are far more aware of
what work is about, and the changes from school
to work - more than when I was in school. I
hadn't thought of it in that context.

Q.2b Do you think that awareness comes from the school
or from parental pressure?

A. It's difficult to say. Certainly from talking to
them, I got the impression that the school were
trying to do more, especially after the first lot
we had. Our comments to them did some good. They
realised that if employers are going to do this
then the kids must be geared to what's going on and
must realise that it's serious.

Q.3. Do you have a view about preparing pupils for the
World of Work?

A. Yes. In their last year at school they should at
least have some insight into the working world. I
would hope by then that the school between them would
know which way the lads are looking, whether it be
management or office work, etc. The school should
know what his good points are and what he's going
to do. I presume they have Careers Masters and
things like that which we didn't have the benefit
of. It's their job really to gear them towards the
job they're going to take. I would have thought
it's important, especially in the last year.
Exams. I know are important, but I would have thought
they ought to prepare them a bit.

Q.4. How much contact do you have with Teachers?

A. Well, Mr. P-- I contact. My Co-Director's children
go to school 33. He's got to know a few of the
different Masters and he's been told we may be dealing
with a different Master next year. Mr. P-- mentioned
that too. Personally, I haven't met anyone else.

Q.4b Do you refer back to him?

A. Not a lot. Only if I want to contact one for a job.

Q.4c Do you discuss how they've fared?

A. We fill in a form which we send back, which they supply
us with which is broken down to what they do in the
week, e.g. interest, mixing with people, whether they
listen, that sort of thing.

Q.4d Is that a City and Guilds form?

A. Yes, it's part of their Work Experience Course. We
fill in our comments. We've never had cause to contact
them in any other way.
Q.4e What type of pupil or ability do you think you're getting?

A. The first time, pretty low. It struck us at the time that they were sending us the ones who couldn't do anything else. We did talk to them afterwards. The type of work is specialist. We're building Outside Broadcast Vehicles. The second time they sent us more intelligent lads. We fared a lot better because there is a lot of Maths. involved in this trade. The first lot couldn't read a ruse, so we got them to measure things and they didn't have a clue; I would say middle ability.

Q.4f Would you like to improve your contacts?

A. Well, no, they're pretty involved. After the first episode, Mr. P-- visited, had a look around, now they probably do know. It's pretty good. We want to carry on with it. It's paying dividends for us. There's so little skill about it's far easier to use ones who've already been on Work Experience to us.

Q.4g What role do you have?

A. Yes, well, in helping them to get a job, no necessarily with us. To give them an insight into differences between work and the school. They go to quite a few other companies as well. Between us I hope we give them enough experience to know what working life is about and the importance of doing the things they should be doing.

Q.4h Do you have any contact with the other Companies?

A. Well, I know who they are, but I've never got together to discuss it really.
Q.41 Would it be beneficial to talk to other Companies?
A. I think we all work in different ways. They may assess different pupils differently to us. It's better to do it independantly.

Q.5&6 What do you expect from pupils and what do they gain?
A. Well, in a week they all enjoy it. It's very different from school. Only one didn't enjoy it because he wasn't good with his hands. It's too quick to tell really. The two we've taken on, they found it hard after they'd been here a month. It was tiring, hard and a much longer day. A lot write in and say thank-you. They don't all write in. They get a lot out of it. Whether I can say in a week, that we can give them a lot, is difficult. We do put a lot of emphasis on safety.

Q.6b Do you do a lot of theoretical work before they start?
A. No. I talk to them for an hour or so. Introduce them to the others, show them around. We use the same person all the time to put them with and each day we just walk around and see if they're all right.

Q.7 Do you maintain the contact to the point of providing them with jobs at the end?
A. I think I've answered that already.

Q.8 What about your links with YTS?
A. We've just taken on the second one that we've had on
YTS - taken him on permanently. As a small Company we're helped financially by YTS. We've only been established for four years. The two we're taking on now, we've been in touch with YTS, but there's no Course in this trade this year, so we've had to contact the Department of Employment and they've pointed us towards the Young Workers Scheme.

Q.9. Would you like to make any other comment about the school?

A. Yes. After the first lot we were a bit doubtful, but now they send us hand-picked lads and it's beneficial. Mr. P-- said they're having difficulty finding Companies who would do this but the Co-Directors children were there and it's helped. Yes, we do want to continue with it.
Interview Schedule for Chairman of the Parent Teacher Association - School 33

This schedule was shortened as the interview had to be conducted in front of a large class.

1. How well is the PTA attended?
2. What activities are involved?
3. What do you think are parental attitudes concerning their roles on the Committee?
Appendix 41

Interview with Chairman of the Parent Teacher Association.

I asked to see 6 sets of parents, ideally of 4th and 5th form pupils.

1. How well is the PTA attended?

The Committee attendance is very good, but response to meetings set up is very disappointing. We suffer from 'Countyitus'. 50 - 60% say "it's your business to educate my kids, not mine". Others start enthusiastically and then decide to watch 'Top of the Pops' or mow the lawn, so we're left with the top end O Level intellectually, who care, and carry the school.

2. What activities are involved?

Fund-raising and liaison between this school and its feeder schools.

They should be given the V.C. for trying. We've offered various evenings which give liaison between parents and the school. Interest flags and dies. The attitude of the staff is hardening.

We have Open Days, during the year one at least, usually at the end of the Spring Term, designed for feeder schools, but about 120 come.

Occasionally we have Department meetings. If someone says that they want to know something about the Maths. taught, we arrange an evening. We had advisors and HMIs come in to do an evening on developments in Science teaching.

3. What do you think are parental attitudes concerning their roles on the Committee?

They are hostile to start off with. We have to make them mellow. I'm under threat more than supported.
Preliminary Interview with the Headteacher. Case Study School 33.

After explaining my definitions of School Work Links to include the whole World of Work and not just Industry, the following questions were asked.

Q.1. Was the Curriculum a slow, steady evolution or was it spasmodic, influenced by trends outside?

A. I think it's been steady but it has developed according to initiatives we've come across in one way or another, e.g. Young Enterprise wasn't available in the County for a long time. It stems in part back to an interest I've had since before I came to this school. I've always done work of this sort with pupils in other schools. We've built on this since 1966 when I came to the school. We began with Citizenship in the fourth year which involved visits, speakers from industry, and it's grown from there. We began Understanding Industry six or seven years ago. The City and Guilds Foundation Course has been going for about five years but we are putting in a submission for City and Guilds 365. It depends whether we get the response from the pupils.

Q.2. What led you to take this decision?

A. A number of things. Firstly the developments coming after, e.g. th YTS, CPVE, TVEI and this seemed more appropriate and more practical. Secondly, it is assessed in a fundamentally more practical way, there are few written tests, and thirdly it gives scope to offer it to a wider range and ability and a chance to do external exams. in up to four other subjects so that they can have the best of both worlds. Fourthly, it also leads us into profiling, and we need to do this.
Q.3. Are you involved to a great extent with Profiling?

A. Well, we have the Leavers Certificate which is a School profile, and there are various County Meetings that staff are still going to, meetings about it to hear about what's going on, and we're also probably going to look at the First year with a view to introducing assessment there.

Q.4. How did you arrive at the School Policy concerning the World of Work?

A. These are not my own ideas. We have a Curriculum Group meeting at the moment and this came from the Group, and also the various documents which the D.E.S. have produced, which we have considered and the various Red Books.

Q.5. Has the Government Policy influenced you?

A. Yes, we always look at what they produce. The County's draft policy has had an influence too. Sometimes it is not easy to say it has influenced a, b and c., because we digest these things and they re-emerge in a slightly different form when we make decisions. We certainly take account of all these things. We have Curriculum Meetings on a Thursday every fortnight and we have Academic Board Meetings, the minutes of which are kept in the Staff room. The Academic Board are more concerned with immediate matters affecting the academic work of the school and the Curriculum Board is trying to look ahead essentially.

Q.6. Could I see a copy of your Log Book?

A. I don't use the Log Book as a summary of School policy. It concerns itself with events a bit out of routine. One has a general inspection report in it, an evaluation
report is too big to go in. Some Heads don't bother with them anymore. I look on them as an historic document. We have Logs going back to the 1880's because it was, at first, a Girl's School, then a Secondary Modern, and then a Comprehensive 11-16.

After asking these questions of the Head, I then established on tape, my method of coming into the school to begin Case Study work. To say exactly why I was here, to have an introduction, via the Head, in Tuesday Morning's Staff Briefing, when I wouldn't be there. To establish that I would go in for a day to get to know people so that the situation may be eased regarding teacher's action, and how it might interfere with research, and to get a broad, overall picture of what's going on throughout the school, I said this would be very useful before I began interviewing.
SOME ORGANISATIONS FOSTERING SCHOOL-WORLD OF WORK

LIAISON ACTIVITIES (1984)

NATIONAL ORGANISATIONS

<table>
<thead>
<tr>
<th>ORGANISATION</th>
<th>CONTACT</th>
<th>ACTIVITIES/AIMS</th>
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<tbody>
<tr>
<td>DOT I Education Unit</td>
<td>Ashdown House R 361 123 Victoria Street London SW1E 6RB</td>
<td>Part-funding of SILOs. (The beginning of the school-industry movement.) Encourages industry/education activity including financial pump priming (eg development of SATROs), relevant teaching and learning materials and in-service teacher training. Sponsors a free film service and VIEW magazine.</td>
</tr>
<tr>
<td>INDEX (Industrial Experience)</td>
<td>The Director Robert Hyde House 48 Bryanston Square London W1H 7LN</td>
<td>6 months experience in industry for young people who are likely to go to University. To encourage the more able young people into industry and commerce, irrespective of choice of career.</td>
</tr>
<tr>
<td>INDUSTRIAL SOCIETY</td>
<td>The Director Robert Hyde House 48 Bryanston Square London W1H 7LN</td>
<td>2-day Challenge of Industry Conferences for pupils and teachers. 'Why Industry Matters', 1-day conferences. Established student Industrial Societies at Universities. To show the importance of wealth creation in our society.</td>
</tr>
<tr>
<td>PROJECT TRIDENT</td>
<td>The Director The Trident Trust Robert Hyde House 48 Bryanston Square London W1H 7LN</td>
<td>A work experience scheme for school pupils 14-19 years. Funded by, and requested by LEAs. Provides administrative help outside the school. Also involved with Voluntary Service activities and personal development.</td>
</tr>
<tr>
<td>SCHOOLS' CURRICULUM INDUSTRY PROJECT (SCIP)</td>
<td>The Director 101 Great Portland Street London W1N 5FA Tel: 01 636 8762</td>
<td>SCIP co-ordinators, several of which are termed SILOs, EILOs, DISCOs (liaison officers for LEAs). Aims to make change permanent in schools through affecting teacher and pupil attitudes. Encourages cross-curriculum development in field of industrial links.</td>
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<td>ORGANISATION</td>
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<tr>
<td>Science and Technology Regional Organisations (SATROs)</td>
<td>The Director 1 Birdcage Walk London SW1H 9JJ</td>
<td>Liaison officers provide a resource base and encourage in-service training and courses for young people. Aims to link, enhance, enrich, initiate, enable, inform and innovate.</td>
</tr>
<tr>
<td>UNDERSTANDING BRITISH INDUSTRY (UBI)</td>
<td>The Director UBI Resources Centre Sun Alliance House New Inn, Hall Street Oxford OX1 2QE</td>
<td>Regional Liaison Officers (8). Resource centres called Satellite Centres. Publish materials for teachers. Organise in-service courses and support teacher training.</td>
</tr>
<tr>
<td>UNDERSTANDING INDUSTRY</td>
<td>INVESTORS IN INDUSTRY CONSULTANTS Ltd. 5 Victoria Street Windsor Berkshire SL4 1EZ Tel: 075 35 56633</td>
<td>Industry talking to schools. A series of 8 x 1½ hour talks, with a booklet (published 1984) prepared for pupils (15-17 years and undergraduates). To help schools provide pupils with an understanding of industry and commerce without significantly increasing administration.</td>
</tr>
<tr>
<td>YOUNG ENTERPRISE</td>
<td>The Director 1 Front Door Robert Hyde House 48 Bryanston Square London W1H 7LN</td>
<td>To allow pupils 15-19 the experience of running their own small businesses, with the advice of local business representatives. An extra-curricular activity.</td>
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<tr>
<th>CAREERS ORIENTATED ORGANISATIONS</th>
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<tr>
<td>CAREERS RESEARCH AND ADVISORY CENTRE</td>
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<tr>
<td>ENGINEERING CAREERS INFORMATION SERVICE (ECIS)</td>
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<td>National Institute for Careers Education and Counselling</td>
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An Example of Publisher Involvement

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<th>ORGANISATION</th>
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<tr>
<td>Longman Resources</td>
<td>Longman Resources</td>
<td>Mini-Co. Kits - materials to aid young people set up their own school-based companies.</td>
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<tr>
<td></td>
<td>33-35 Tanner Row, York Y01 1JF</td>
<td></td>
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<tr>
<td></td>
<td>Tel: 0904 20801</td>
<td></td>
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<tr>
<td>Association of Science Education</td>
<td>The ASE Hatfield, Herts. AL10 9AA</td>
<td>Has produced:- Science &amp; Society Curriculum Science at Work materials. Aims to increase appreciation of work in society, through publications and research.</td>
</tr>
<tr>
<td>British Association for the Advancement of Science</td>
<td>The Director Fortress House 23 Savile Row, London W1X 1AB</td>
<td>Through the media of fairs, speakers and branch activities, attempts to foster school-industry links, showing the importance of the manufacturing industry to the British economy.</td>
</tr>
<tr>
<td>The Engineering Council</td>
<td>The WISE Director Camberra House 10-16 Maltravers Road, London WC2R 3ER</td>
<td>WISE (Women in Science and Engineering Project). Young Engineer for Britain Scheme. With SCSST, 'Science &amp; Technology for 9-13 years'. Information sharing system with SATRO. National Engineering Scholarship funded by DES.</td>
</tr>
<tr>
<td>National Centre for School Technology (NCST)</td>
<td>Trent Polytechnic Burton Street Nottingham NG1 4BU</td>
<td>Supports schools by means of resource directories, short courses and conferences, films, books, guides, B.Ed. in-service courses, SATRO link. Teacher fellowships, etc.</td>
</tr>
<tr>
<td>Standing Conference on Schools' Science and Technology</td>
<td>1 Birdcage Walk, London SW1H 9JJ</td>
<td>Developed SATROs (a few preceded SCSST). Aims to encourage the development of science and technology in schools. By influencing teachers through in-service courses, aims to change curricular and teaching strategies.</td>
</tr>
<tr>
<td>ORGANISATION</td>
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<tr>
<td>Schools Information</td>
<td>The Director</td>
<td>To draw together links between education and commerce and industry, for Chemistry teachers, publishing regular bulletins.</td>
</tr>
<tr>
<td>Centre on the Chemical Industry (SICCI)</td>
<td>The Polytechnic of North London Holloway Road London N7 8DB</td>
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**EXAMPLES OF LOCAL CENTRES/COMMITTEES**

| Birmingham Centre for Education and Industry (CIEL) | The Director The Bardesley Centre Stratford Road Birmingham B11 1AR | Draws together local teachers and produces a school-industry liaison activities newsletter. Has advisory and SCIP support. |
| Centre for Industrial & Educational Liaison (West & North Yorks.) (CIEL) | The Director The Polytechnic Queensgate Huddersfield HD1 3DH | Provides a focal point for the development of technology in schools and colleges and for close liaison between education, industry and commerce, eg. Twinning. |
| West Midlands Council of School-Work Links | The Director Dept. of Industry Ladywood House Stephenson Street Birmingham | A committee which stimulates participation in local link schemes, offering limited financial help (DOTI): links with local SATRO. |

**INDUSTRIAL/COMMERCIAL ORGANISATIONS**

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Contact</th>
<th>Activities/Aims</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank Education Service</td>
<td>10 Lombard Street London EC3V 9AT Tel: 01 626 9386/7</td>
<td>Produces resource materials and case studies. A trained speaker panel. Aims to influence pupils of 13+.</td>
</tr>
<tr>
<td>British Petroleum</td>
<td>Britannic House Moor Lane London EC2Y 9BU</td>
<td>Teachers into Industry Scheme of teacher secondments (2 months). To promote school-industry links. The School Link Scheme's Educational Service develops and disseminates learning materials.</td>
</tr>
<tr>
<td>Confederation of British Industry Teachers into Industry Scheme</td>
<td>Centre Point, 103 New Oxford Street London WC1A 1DU</td>
<td>Teachers into Industry Scheme. 3 weeks practical experience in industry and commerce to increase awareness.</td>
</tr>
<tr>
<td>ORGANISATION</td>
<td>CONTACT</td>
<td>ACTIVITIES/AIMS</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>----------------------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Imperial Chemicals Incorporated</td>
<td>PO Box 6 Bessemer Road, Welwyn Garden City, Herts. AL7 1HD, Tel: 07073 37160</td>
<td>To provide jobs, information concerning ICI, and to support worthwhile educational projects. Publications, videos, Steam magazine for Science teachers.</td>
</tr>
<tr>
<td>Metalbox Co. Ltd.</td>
<td>Corporate Personnel Dept., Metal Box Ltd., Queen's House, Forbury Road, Reading RG1 3JH</td>
<td>Provides business games and printed materials, eg. 'Industry - Close up'.</td>
</tr>
<tr>
<td>SIRA</td>
<td>Sira Institute Ltd., Chislehurst, Kent</td>
<td>An Industrial Careers Development Unit, sponsored by the Department of Industry until 1981.</td>
</tr>
<tr>
<td>Schools Liaison Service</td>
<td>PO Box 23 Northgate Avenue, Bury St Edmunds, Suffolk, Tel: 0284 63277</td>
<td>Encourages greater awareness of technology. Provides careers guidance. Encourages more chartered Mechanical Engineers. Has a volunteer network of Branch Schools Liaison Officers.</td>
</tr>
<tr>
<td>Trades Union Congress</td>
<td>Education Dept., Congress House, Great Russell Street, London WC1B 3LS</td>
<td>No school-industry scheme, but closely involved with SCIP and CBI. Regional briefing workshops for trade unionists who wish to talk to young people. Work Experience guidelines published.</td>
</tr>
</tbody>
</table>

LOCAL EDUCATION AUTHORITIES
(see Appendix 45..)

EXAMPLES OF PROFESSIONAL BODIES

| Centre for the Study of Comprehensive Schools          | The Director, Wentworth College, University of York, York Y01 5DD | A central body, produces printed materials/paper of local initiatives in the field of school-work links and other topical issues. To develop new initiatives and improve co-operation by the study and dissemination of good practice. |
| Society of Education Officers                        | Director, 1 Front Door, Robert Hyde House, 48 Bryanston Square, London W1H 7LN | Industry Committee Newsletter, to provide regular communication between the Committee and the local LEAs. Copies sent to LEAs and industry, commerce and central Government. Publishes occasional papers - eg. No.3 - 'Key Issues for Industry & Education'. Co-ordinates national bodies and projects within LEAs. |
TRAINING BOARDS

Training Boards are listed in the Cooper Report (1981) p.258.

The EITB (Engineering Industry Training Board) is easily the most prominent Training Board involved with this work.

EXAMINING BODIES

<table>
<thead>
<tr>
<th>ORGANISATION</th>
<th>CONTACT</th>
<th>ACTIVITIES/AIMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEB</td>
<td>The Associated Examiners Board</td>
<td>O Level GCE</td>
</tr>
<tr>
<td>Wellington House</td>
<td>British Industrial Society</td>
<td></td>
</tr>
<tr>
<td>Station Road Aldershot</td>
<td>Business Studies A</td>
<td></td>
</tr>
<tr>
<td>Hants GUILBQ</td>
<td>Business Studies A0</td>
<td></td>
</tr>
<tr>
<td>Tel: 0252 25551</td>
<td>Ref. 162 AEB.</td>
<td></td>
</tr>
<tr>
<td>Cambridge</td>
<td>Cambridge University</td>
<td>Business Studies O level</td>
</tr>
<tr>
<td>Cambridge City &amp; Guilds</td>
<td>The Director</td>
<td>1. Foundation Courses.</td>
</tr>
<tr>
<td></td>
<td>W1N 4AA</td>
<td>Provides recognised national standards in a wide range of technical and other subjects. Designed for a variety of jobs. The most significant examinations in this field.</td>
</tr>
<tr>
<td>Tel: 01 584 3050</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EAEB</td>
<td>East Anglian Examination Board</td>
<td>Business Studies CSE Mode 1 (1984)</td>
</tr>
<tr>
<td>The Lindens</td>
<td>CSE Mode 2</td>
<td></td>
</tr>
<tr>
<td>Lexden Road</td>
<td>Understanding Industrial Society</td>
<td></td>
</tr>
<tr>
<td>Colchester Essex</td>
<td>Ref. 5/2/9K/U15 EAEB.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JMB</td>
<td>The Joint Matriculation Board</td>
<td>A0 level GCE Industrial Studies</td>
</tr>
<tr>
<td>Manchester M15 6EU</td>
<td>Ref. N/a.JMB.</td>
<td>Integrated Humanities (0 level) (No ref. found).</td>
</tr>
<tr>
<td>Tel: 061 273 2565</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ewert Place Summertown Oxford  OX2 7BZ</td>
<td>Industrial Studies Ref. 9842.</td>
</tr>
<tr>
<td></td>
<td>Tel: Oxford 54291</td>
<td></td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>ORGANISATION</th>
<th>CONTACT</th>
<th>ACTIVITIES/AIMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxford and Cambridge</td>
<td>The Oxford and Cambridge Schools Examination Board</td>
<td>GCE A0 level French/German for Business Studies Ref. 8620 French 8625 German.</td>
</tr>
<tr>
<td>Royal Society of Arts</td>
<td>RSA Examination Board 6-8 John Adam Street Adelphi London SC2N 6EZ Tel: 01 839 1691</td>
<td>Certificates - Vocational Preparation: Basic Clerical Procedures and Basic Receptionist/Telephonist skills. Practical Profile Schemes (suitable preparation for B/TEC) and integration for TVEI and YTS.</td>
</tr>
<tr>
<td>SUJB</td>
<td>South Universities' Joint Board for School Examinations Cotham Road Bristol BS6 6DD</td>
<td>Economic and Public Affairs of the United Kingdom, GCE A/O.</td>
</tr>
</tbody>
</table>

(Other examinations are related:- Note the development of Life Skills and Social Economics examinations.)
YOUNG ENTERPRISE

ARCHIEVERS EXAMINATION 1985

Examination to be taken during the week commencing Monday 4th March 1985. Answer any FIVE of these eleven questions: each question carries the same possible mark. Time allowed: 1½ hours (under the supervision of an Adviser.)

NOTE: Although each question is optional, if you choose to answer the Director-General's Special Question, No. 11 as one of your five, you are then eligible for an additional prize of a continental travel place offered by SeaLink.

1. What were the key problems that you encountered in your initial meetings and establishing your Company? What did you learn from these?

2. In what ways did the members of your Company discover the value of good communications?

3. How was your buying organised? How did you choose your Buyer? What problems did he/she have to face?

4. What records were maintained in your Company? Were they of value? How did you make good use of them?

5. How was production organised in your Company? What proved to be the best methods? How was quality control established and maintained?

6. What management positions were established in your Company? Give the specific duties of each appointment. Were all the appointments maintained throughout the life of the Company? If not, what reasons were there for changes being made?

7. What factors did you take into account in deciding on a price for your product? Did your original decision prove to be the right one, or did it have to be revised?

8. If you were to run a real life business yourself, what differences would you expect to encounter compared with Young Enterprise? How might you deal with these differences, and to whom would you go for advice?

9. Were there any personal clashes within your Company? If so, what was done to resolve these? What did you learn from this?

10. What discoveries have you made regarding the business and personal needs of those you have worked with, and with whom you have come into contact during your time with Young Enterprise? How may this have helped your personal development?

11*. Selection of the right product is critical to the success of any enterprise. No matter how excellent the product, it will fail unless it is something that people need and where these needs can be converted into a desire to buy. Market research and marketing are key areas of any company's operations, bringing together design, production, quality, presentation/packaging, communications, and sensitivity to the attitudes of others, and in satisfying the purchasers' needs.

Through your involvement in Young Enterprise, if you were contemplating a career in marketing, how might you use this knowledge?
LOCAL EDUCATION AUTHORITY INVOLVEMENT WITH

SCHOOL-WORLD OF WORK LIAISON (1983/4)

This catalogue was compiled as a result of information gained from 65 Local Education Authorities in England and Wales. It serves as a snapshot picture in time of major activities (omitting TVEI) considered worthy of note by Local Education Authorities for the purpose of this research.

ENGLAND

LOCAL EDUCATION AUTHORITY
AND CONTACT

Avon

The Schools Industry Liaison Officer
PO Box 57
Avon House North
St James Barton
Bristol
Tel: 0272 290777 Ext.558

Twinning; Teacher Secondment to Industry; YE;
Work Experience Schemes; INSET Courses for Teachers;
UBI; CBI; Chamber of Commerce; Industrial Secondment to Schools.

London Borough of Barnet

The Director of Educational Services
Town Hall
Fiern Barnet
London N11 3DL
Tel: 01 368 1255

Work Experience Schemes.

Barnsley

The Director
Educational Development Centre
Wentworth Castle
Stainborough
Barnsley S75 3ET
Tel: Barnsley 43547/8

Implicit rather than explicit policy; Project Trident;
Schools Curriculum Industry Project since 1981.

Bedfordshire

Education/Industry Liaison Officer
County Hall
Bedford MK42 9AP
Tel: 0234 63222 Ext.231

Industry/Education Service Liaison Group; In 1980 Board of Studies panel established
to look at curriculum in this field. Document produced, 'Economic & Industrial
Awareness in the School Curriculum'. Suggests use of Curriculum Matrix for all
subjects. Project Trident; Work experience; Twinning;
Conferences; YE; Visits.
LOCAL EDUCATION AUTHORITY
AND CONTACT

NATURE OF LIAISON WORK

Berkshire

The Assistant Education Officer
for Secondary Education
Shire Hall
Shinfield Park
Reading RG2 9XE
Tel: 0734 875444 Ext.3560
or
The Technology Consultant

5 Partnership Committees;
2 SILOs;
A Technology Consultant;
Policy is to promote local initiative;
A course for governors and parents.

Birmingham

The Chief Education Officer
City of Birmingham Education
Department
Council House
Margaret Street
Birmingham B3 3BU
Tel: 021 235 2541

SCIP;
SATRO;
Project Trident;
YE.

Bradford

The Assistant Director for 13+
Provincial House
Bradford
West Yorks. BD1 1NP
Tel: 0274 729577 Ext.682

Bradford Careers Association;
Twinning;
CBI placements;
Introduction to Industry Scheme
(also for Industrialists);
Careers conventions;
Work experience;
Employer meetings at schools;
School leavers handbook produced.

London Borough of Brent

The SCIP Co-ordinator
Careers Education Resource Unit
Brent Teachers Centre
Ealing Road
Alperton, Wembley
Middlesex
Tel: 01 902 3723

SCIP - Encourage experiential learning;
(Brent Schools & Industry Project).
Industrialists, TUC and teachers
involved;
INSET work;
Science Curricula Revision with local
industrialists;
Conference 'Management of Change'
Course for Heads, sponsored by DOI & ICI;
Insight Course; Work Experience;
Project Trident.
LOCAL EDUCATION AUTHORITY AND CONTACT

London Borough of Bromley

The Inspector with Responsibility for School/Industry Links

The Curriculum Development Centre

Church Lane

Bromley BR2 8LD

Tel: 01 462 8912

Buckinghamshire

Assistant Education Officer (Careers)

Careers Section

County Hall

Aylesbury HP20 1XA

Tel: Aylesbury 5000

Calderdale

The Chief Education Officer

Education Department

PO Box 33

Northgate House

Northgate

Halifax HW1 1UW

Tel: 0422 57257 Ext.2537

Coventry

The Director of Topshop Centre

Topshop - Edgewick

Cross Road

Foleshill

Coventry CV6 5GP

Tel: 0203 666143 Ext.2

Cumbria

Cumbria SATRO Director

Irish Street

Whitehaven

Carlisle Cumbria

NATURE OF LIAISON WORK

Work Experience;

Engineering - Third Year pupils Scheme;

Technological Problem-Solving days for primary school pupils;

Schools-Industry Resources Directory;

Science-Technology Services (SATROs);

1 day visits.

Local Liaison Committees, 3,

with services of a full-time Liaison Officer;

A County Industrial Liaison Officer on the Staff of the Careers Service;

Local Partnerships;

UBI; 2 Resource Centres in County; YE;

School based groups;

Seminars for teachers (business/industry);

Youth Clubs and leaders as a medium for liaison;

Teacher attachments to industry;

UI; Business Game Compendium;

Insight Courses;

Challenge of Industry Conferences (Ind.Soc.);

City and Guilds Foundation Courses;

Understanding Industrial Society Course.

Regional CIEL; Careers Association;

Chamber of Commerce Education Sub-Committee;

Careers Service; Advisory Committee.

'A policy of development and encouragement without specific documentation.'

Topshops;

Work Experience - 2 weeks - County Policy;

Training Workshops developed for MSC (Topshops).

SATRO
LOCAL EDUCATION AUTHORITY
AND CONTACT

**Derbyshire**

County Education/Industry Liaison Consultant
Derby Lonsdale College
Uttoxeter Road
Derby

**Nature of Liaison Work**

Visits to industry; Visits to schools;
Review of syllabuses annually across
the curriculum;
Computerised directory of resources;
Two-way exchanges - teachers and
industrialists; SATRO;
School based work experience;
Teacher secondment;
Local projects encouraged;
Science and Technology fairs;
Teacher Workshops;
Seconded Head as Consultant;
Local Committees for Education/Industry
Liaison;
Young Engineer for Derby competition;
Focus on Engineering Conferences (ECIs);
UBI competitions;
Involvement with the British Association
for Commercial and Industrial Education.

**Devon**

The Deputy Principal
Careers Officer
County Hall
Exeter EX2 4QG
Tel: 0392 77977 Ext.2049

**Nature of Liaison Work**

Work Experience;
YE; SATRO; SCIP; UBI;
Schools- Council Careers Education &
Guidance Project;
CBI - Introduction to Industry Scheme;
CRAC Insight Programme;
Industrial Society;
Opening Windows (Engineering).

**Dorset**

Senior Adviser for Secondary Education
Portman House
Richmond Hill
Bournemouth BH2 6ER
Tel: 0202 22066 Ext.6130

**Nature of Liaison Work**

UBI Industrial Secondment of Teachers;
University of Southampton Research
Project: 'Linking Schools and Industry',
summarises current practice (1983);
Project Trident;
County policy set out in a document
called 'Preparation for Working Life'
(1978) which is being revised;
The Provision of Personal, Social and
Life Skills for Young People - a
Conference held 3rd November 1983.
Local Education Authority

Dudley

The Chief Adviser
Education Services
2 St James Road
Dudley
West Midlands  DY1 1JQ
Tel: Dudley 55433 Ext.4291

Nature of Liaison Work

Long-term secondment of teachers to industry, resulting in localised liaison activities. (The Dudley Project 1981/2); UBI; Teacher visits to Industry; Employer visits to Schools; Materials for the less-able pupils; Tape-slide programmes and video tapes on Industry; In-service courses for teachers; CDT links; SATRO; Work Experience Schemes; Careers Education and Guidance Associations; YE (1980); Opening Windows; Schools & Working Life Conference 1978/79.

Durham

The SATRO Co-ordinator
New College
Framwellgate Moor Centre
Durham DH1 5ES
Tel: 0385 62421 Ext.234

Hampshire

Deputy County Careers Officer
Education Department
The Castle
Winchester SO23 8UG
Tel: 0962 54411 Ext.396

London Borough of Haringey

The SCIP Co-ordinator
Education Offices
48-62 Station Road
Wood Green  N-2 4JY
Tel: 881 3000 Ext.329

SATRO; 1983 British School Technology; Future in Engineering Scheme; Durham Industry Commerce Association (DICE); Schools join as members; YE; Local Information Centre.

Teacher Industrial Assignment Scheme; Directories of resources; Vacation Courses; Careers Conventions; Education and Employment Liaison Council for Hampshire; Employment Education Project; UBI; Project Trident; SCIP; Southern Science and Technology Forum; Southampton Education/Industry Link Action Group; Basingstoke Industry and Commerce Education Project; Work Experience; Directories of Firms.

SCIP; Use of the local environment as a source of material which can be used in the learning process; Involving industrialists and trade unionists in discussions with teachers; Utilising the expertise of AUTs; Work experience schemes (non-vocational); Cross-curricular development; In-service courses and teachers into industry schemes.
LOCAL EDUCATION AUTHORITY  
AND CONTACT

Hereford and Worcester
The Education/Industry Liaison 
Officer  
County Careers Centre  
County Buildings  
St Mary's Street  
Worcester WR1 1TW  
Tel: Worcester 353366 Ext.3496

Hertfordshire
The SCIP Co-ordinator 
Education Department  
County Hall  
Hertford SG13 8DF  
Tel: Hertford 52567

London Borough of Hillingdon
School/Industry Liaison Officer (SCIP) 
Deansfield Teachers' Centre  
Queen Walk  
Ruislip HA4 0LR  
Tel: 018415472

or

The Mathematics Adviser 
Education Department  
Civic Centre  
Uxbridge  
Middlesex UB8 1UW  
Tel: Uxbridge 50457

London Borough of Hounslow
Assistant Education Officer (Further & Community Education) 
Education Department  
The Civic Centre  
Lampton Road  
Hounslow TW3 4DN  
Tel: 01570 7728 Ext.3515

Humberside
The Director 
Humberside Forum for Industry, Commerce & Education  
Humberside College of Higher Education  
Aquin House, Inglemire Avenue  
Hull HU6 7LU  
Tel: 0482 447813

NATURE OF LIAISON WORK

SATRO; Education Industry Centre;  
EIL0 Seconded teacher )  
SCIP Co-ordinator );  
Standing Committee of Employers and Educationists;  
Local School-Industry Groups.

Committed to encouraging all schools to develop links individually and collectively;  
SCIP; Part-time SATRO Co-ordinator;  
School/Industry Forums.

Full-time SCIP Co-ordinator;  
Six teachers on Work Experience;  
Policy - DES Framework.

Project Trident;  
Education Industry Working Group;  
Directory of resources;  
INSET.

SATRO; Teachers Into Industry Scheme;  
Talks and visits;  
Business Game Competition;  
Technology Competitions; Twinning;  
YE; CRAC Insight Courses;  
Engineering Summer School;  
Chamber of Commerce/Education Liaison Committee.
LOCAL EDUCATION AUTHORITY
AND CONTACT

Inner London

Senior Inspector of Careers
Guidance
The County Hall
London S01 7PB
Tel: 01 633 7553 Ext.277c

Isle of Wight

The Chief Education Officer
County Hall
Newport
Isle of Wight PO30 1UD
Tel: 0983 524031 Ext.348

Kent

The County Education Officer
Education Department
Springfield
Maidstone ME14 2LJ
Tel: 0622 671411 Ext.2396

Kirklees

The Chief Inspector
Oldgate House
2 Oldgate
Huddersfield
West-Yorks. HD1 6QW
Tel: 0484 37399 Ext.233

NATURE OF LIAISON WORK

Divisional Industry School Co-ordinators
(10) - DISCOs,
3 are SCIP Co-ordinators,
Others funded by ILEA and Inner City
Partnerships (jointly);
Careers Education & Guidance Working
Party.

Teachers visits to Industry and other
educational establishments;
Secondment of Head and Deputy of 1
High School.

Work experience in fifth form for all
ability levels, encouraging most able
to look for careers high in industry;
Industrial Society; CRAC;
Understanding Industry Project;
CBI Teacher secondment;
Courses for teachers and educationists;
SCIP County Co-ordinator;
Mathematics & Industry Conference for
Profiling;
Careers Service involvement.

Twinning (Industry and Education);
Chamber of Commerce/Secondary Heads
Scheme;
CBI - Introduction to Industry Scheme;
CBI - Introduction to Education for
Industrialists;
Understanding Industry Project;
Institute of Mechanical Engineering
Teacher Fellowship Scheme;
Yorkshire & Humberside Education/Industry
Council CIEL;
Young Engineer for Britain.
LOCAL EDUCATION AUTHORITY AND CONTACT

Knowsley
The School-Industry Teacher Adviser
Teachers' Centre
Knowsley Lane
Huyton
Merseyside L36 8HW
Tel: 051 480 8338

NATURE OF LIAISON WORK
UBI secondment of teachers; UBI;
DES Regional course;
Project Trident; 2 seconded teachers;
18 training events; INSET:
Over 30 National and Local Organisations
have contributed to liaison work;
Resources Centre;
Challenge of Industry Conference;
School/Industry Directory;
Visits to Industry; AOTS; SCIP.

Lancashire
The County Science Adviser
PO Box 61
County Hall
Preston PR1 8RJ
Tel: 0772 54868 Ext.3663

Science Adviser responsible for school-
work links, + Senior Assistant Education
Officer, + a member of staff at Edge
Hill College of Higher Education.
These co-ordinate the work;
SATRO (STEEL - Science, Technology &
Engineering Education in
Lancashire);
Individual school initiatives;
Mode 3 CSEs; Conferences;
Booklets produced;
Understanding Industry courses for
staff and pupils;
CBI secondment for teachers; UBI;
Work experience for 10%;
5 schools in SCIP;
Resource Centre.

Leeds
The Director of Education
Leeds City Council
Selectaport 17
Merrion House
110 Merrion Centre
Leeds LS2 8DT
Tel: 0532 463863

Twinning; Project Trident;
Insight Course; B/TEC Courses;
UI; Teacher Secondment; CBI; SATRO;
EEC Project; Industrial Society;
Young Engineer for Great Britain;
19 Local initiatives; Work Experience;
Patronage of Industry and Business of
Arts in Schools.

Leicestershire
Industrial Liaison Officer
(Careers Section)
County Hall
Glenfield
Leicester LE3 8RF

Industry Liaison Officer; Teacher
secondments; School based work experience;
Industrial visits to schools;
Industry in the Classroom Course; YE;
Resources Directory; Work experience
policy; Project Trident; SCIP;
Teachers Fellowship in Engineering;
SATRO; UBI; CRAC.
**LOCAL EDUCATION AUTHORITY AND CONTACT**

**Manchester**

Education/Industry Liaison Officer (UBI)
Urban Studies Centre
Miles Platting Community Education Centre
Holland Street
Manchester
Tel: 061 205 1355

**Nature of Liaison Work**

Economics 14-16 Project; SCIP Education/Industry Liaison Officer since 1980; Report of Curriculum Working Party, 1983; Career Education Links; UI; YE; Work Experience in PSE; Experiential methods and role-play; Resource collection encouraged - Centre established; In-service training, materials and secondment.

**Newcastle-upon-Tyne**

SCIP Co-ordinator
Pendower Hall
Teachers' Centre
West Road
Newcastle-upon-Tyne NE15 6PP
Tel: 091 274 3620

**London Borough of Newham**

Careers Support Teacher
In-service Education Centre
New City School
New City Road
London E13 9PY
Tel: 01 472 9635

**Northampton**

The County Education Officer
Northampton House
Northampton NN1 2HX
Tel: 0604 34833

**Northumberland**

The Director of Education
County Hall
Morpeth
Northumberland NE61 2EF
Tel: 0670 514343

**Nature of Liaison Work**

Careers Support Teacher; In-service Education; Aims to develop careers education by promoting links between specific schools and Companies and to produce a resource directory listing contacts.

Business Education Liaison Committee; Work experience schemes; YE; Teacher secondments into Industry scheme; Project Trident; Twinning; UI; UBI; Pupil Profiles.

Industrial Resource Directory;
Pupils Staff
Industrial Visits; In-service training;
Work Experience; Visits; Conferences;
Careers Education; Working groups;
Competitions, 'Introduction to awards and Industry' (CBI).

exhibitions.
LOCAL EDUCATION AUTHORITY AND CONTACT

Nottinghamshire
The SCIP Co-ordinator
The Education Department
1st Floor
Exchange Buildings South
Cheapside
Northampton NG1 6FZ
Tel: 0602 418511 Ext.212

Oxfordshire
The Senior Schools Adviser
Macclesfield House
Oxford OX1 1NA
Tel: 0865 815896

Rotherham
The SCIP Co-ordinator
Education Office
Norfolk House
Waller Place
Rotherham
Tel: 0709 2121 Ext.3397

Sandwell
The Industry/Schools Co-ordinator
PO Box 41
Highfields
High Street
West Bromwich
Sandwell
West Midlands B70 8RG
Tel: 021 525 7366

Sheffield
The Senior Secondary Adviser
Education Department
PO Box 67
Leopold Street
Sheffield S1 1RJ
Tel: 0742 26341

NATURE OF LIAISON WORK

SCIP; Teachers into Industry;
Policy - guidance for companies
- guidance for teachers;
Schools/Industry Development Officer.

UBI; YE; CRAC - Insight into Industry
(Individual schools);
Teacher secondment;
The Geography Association Project.

Project Trident;

1. All industry links must be within a curriculum context.
2. Long term aims.
3. Development at individual school level.
5. 1978 - permanent School/Industry Liaison Officer.

Twinning; Mock interviews;
School-work Resource Centre;
Work experience (95% of 5th years);
YE; 40+ teachers/year spend 1 week in Industry;
Conference for 4th-6th years - Images of Industry;
Business ventures for 14/16 year olds.

EEC Pilot Project 'Transition from School to Working Life' 1978-82;
34 Research Papers produced;
Teacher appointed by Iron & Steel Industry Training Board as EIO.
(Specific Schools encouraged to develop - eg. General Studies Teaching Guide etc.)
LOCAL EDUCATION AUTHORITY AND CONTACT

Solihull

Education/Industry Liaison Officer
Education/Industry Resources Centre
Solihull YOP Centre
Liaison Officer
Chelmsley Road
Chelmsley Wood B37 7RP
Tel: 021 770 5827

NATURE OF LIAISON WORK

INSET; Education/Industry Liaison Officer; Resource Centre;
Individual innovations;
Teacher Secondment; (An industrial group to advise and monitor the work of the EIL0 1983); Committee to co-ordinate all Vocational Initiatives;
YE; City and Guilds Foundation Courses.

Somerset

Education Officer (Careers)
Education Department
County Hall
Taunton TA1 4DY
Tel: 0823 73451 Ext.5731

In Spring 1977 a County Education/Industry Group was set up and action taken on recommendations;
(CBI, TUC, Training Services Agency, 5 Educators, are involved);
CBI Teachers' Scheme.

Sunderland

The SCIP Co-ordinator
The SCIP Centre
Bede School
Sunderland SR3 4AH
Tel: 0783 229614

SCIP; SATRO;
LIAISE (Linking Industry and School);
Work Experience; Visits; Talks;
Conventions.

Staffordshire

Schools/Industry Liaison Officer
Stone Teachers' Centre
Berkeley Street
Stone Staffordshire
Tel: Stone 3121

City and Guilds 365;
Education/Industry Conferences;
Work Experience (log books);
School Case Studies; SCIP;
Challenge of Industry Conferences;
School/Industry Liaison Committees;
Teacher secondments to industry.

St Helens

The Director of Education
Education Department
Century House
Handshaw Street
St Helens WA10 1RN
Tel: St Helens 24601 Ext.2444

Careers Education 11-16 in all schools;
Job Preparation Courses for the Sixth Form; School visits to industry and vice-versa; Extra-curricular Careers work - regular meeting with Careers Service and Local Industry;
Local liaison groups; Authority is a member of STEM (Science, Technology Education Merseyside); Project Trident;
CBI Introduction to Industry Scheme;
Linking of local employers to local high school proposed. All schools within Authority to participate.
<table>
<thead>
<tr>
<th>LOCAL EDUCATION AUTHORITY</th>
<th>NATURE OF LIAISON WORK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suffolk</td>
<td>Three Business &amp; Education Liaison Groups, 1981; Work Experience Schemes; Careers Conventions; Easter Vacation Courses for Careers; YE; Funding sought for appointment of School/Industry Liaison Officers; Teachers into Industry Scheme.</td>
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<tr>
<td>East Sussex</td>
<td>Individual pupil visits to industry; Group visits to industry; Twinning; City and Guilds Foundation Courses; Secondment of teachers - CBI Teachers into Industry; SATRO.</td>
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<td>West Sussex</td>
<td>SATRO; Liaison groups (Industrialist/Educationists &amp; TUC meet three times a year); Insight into Management Course for Sixth Formers; Resource Directory; Engineering Exhibition for third formers (EPIC - 82); Profiling - School Leaving Certificate - Links with Employers; Work Experience all schools; Young Engineers Club.</td>
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<tr>
<td>Trafford</td>
<td>No specific policy because Schools are encouraged to establish links.</td>
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<td>North Tyneside</td>
<td>A move to appoint a SILO; YE; City &amp; Guilds; B/TEC in Sixth Form.</td>
</tr>
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</table>
## LOCAL EDUCATION AUTHORITY AND CONTACT

### South Tyneside

Curriculum Development Leader  
Education Department  
Town Hall  
Jarrow NE32 3LE  
Tel: Jarrow 4891141

**Work Experience; 14-19 Working Party;**  
**Link Courses with FE;**  
**Vocational Preparation Courses;**  
**In-service Courses in Pre-Vocational Education.**

### Wakefield

The Senior Adviser  
Education Department  
8 Bond Street  
Wakefield WF1 2QL  
Tel: Wakefield 370211 Ext.8006

**SCIP; CIEL; UI;**  
**Pupil and Staff work experience schemes;**  
**Two School Industry Liaison Officers.**

### Walsall

The Director of Education  
Education Department  
Civic Centre  
Darwell Street  
Walsall WS1 1DQ  
Tel: Walsall 21244 Ext.2315

**Report 1979 - 'School Employer Liaison';**  
**Recommendations made in the areas of Careers, VIth Form; Teachers INSET; Employers; TUC involvement with curriculum development.**

### Warwickshire

The Senior Assistant  
County Education Officer  
Warwickshire County Council  
22 Northgate Street  
Warwick CV34 4SR  
Tel: Warwick 3431 Ext.2079

**Industrialist is SILO;**  
**UBI and BP National Conference, November 1983;**  
**Independent Management Committee for School/Industry Links 1981.**

### Wigan

Schools/Industry Liaison Officer  
Education Department  
Gateway House  
Standishgate  
Wigan WN1 1XL  
Tel: 051 709 1452

**SCIP; Seconded teachers, eg. one to Plessey.**

### Wiltshire

The School-Industry Co-ordinator  
County Hall  
Trowbridge Wiltshire  
Tel: Trowbridge 3641

**County Policy (1984); Directory of Resources and Resources Centre;**  
**An Industry Education Liaison Scheme;**  
**YE; UI; Challenge of Industry;**  
**CRAC, UBI courses;**  
**Production of materials;**  
**Mini partnerships and mini companies;**  
**SCIP Secondment; Visits; Work Experience.**
LOCAL EDUCATION AUTHORITY AND CONTACT

West and North Yorkshire

The Centre for Industrial and Education Liaison
The Polytechnic
Queensgate
Huddersfield HD1 3DH
Tel: 0484 22288 Ext.20477
or
The Senior Adviser for Science
College of Ripon & York
St John
College Road
Ripon North Yorkshire
HG4 2QX
Tel: 0765 2691

NATURE OF LIAISON WORK

One of the roles of the Centre is to co-ordinate Twinning, Industry and Education (TIE).
WALES
LOCAL EDUCATION AUTHORITY AND CONTACT

Clwyd
Education Industry Liaison Officer
Industrial Development Division
Shire Hall
Mold
Clwyd CH7 6NB
Tel: 0352 2121 Ext. 545

NATURE OF LIAISON WORK

- Work experience - guidance to schools;
- School-based work appreciation schemes;
- Booklets produced for school leavers - 'Decision 16';
- A director of employers;
- School/Industry Liaison Forums;
- Resource Directories; Competitions;
- Mock Interviews; Conferences.

Gwent
The Schools Industry Liaison Officer
Education Department
County Hall
Cwmbran
Gwent NP44 2XG
Tel: Cwmbran 67711 Ext. 426

- Nearly all schools in Gwent have work experience on the curriculum;
- Individual schools have taken initiatives;
- In 2 areas schools have formed Schools/Industry Consortia.

Powys
Director of Education
The Lindens
Spa Road
Llandrindod Wells
Powys LD1 5HA
Tel: 0597 3711

EEC Project - Transition from School to Working Life - Individual Schools involved - eg. Rural Enterprise Project;
School-Industry Association;
Mid Wales Development Board.

South Glamorgan
The Schools Industry Liaison Officer
The Teachers' Centre
Mynachdy
Cardiff CF4 3HS
Tel: 0222 619528

1980-3 BP Fellow (seconded teacher);
A County Co-ordinating Committee;
An Industrial Resources Centre;
GKN/S.Glam. Schools Business Game Competition;
Industry Week (1981) at Teachers' Centre;
The Economics Education 14-16 Project;
The BIM Initiative;
A Guideline for Work Experience Schemes for Pupils.

West Glamorgan
The Advisory Teacher for S/I Links
West Glamorgan County Hall
Swansea SA1 3SW
Tel: Swansea 471365

Adviser appointed 1984;
Working Party on links between schools and work;
UBI; CBI; SATROs.
### Appendix 46

#### Results of Questionnaire for Department Heads of County X Schools: 1964

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**Mathematics and Computer Studies**

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**Practical Subjects**

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**Key:**
- S = School
- W = Workshops
- I = Industry project
- U = Understanding
- T = Training
- Y = Young Enterprise
- C = Careers Research
- A = Advisory Centre
- N = None
### Department Analysis

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175
## School Analysis

### Results of Questionnaire for Department Heads of Wiltshire Schools: 1984

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**Key:**
- SC: Schools Council
- IND: Industry
- Y: Young Enterprise
- U: Understanding Industry
- R: Rural
- C: Comprehensive
- COM: Comprehensive
- P: Population
- MA: Main Activity
- O: Other
- M: Main
- O: Other
- A: Additional
- R: Rural
- E: Education
- S: Science
- M: Music
- A: Art
- H: History
- G: Geography
- S: Sports
- T: Technology
- N: Nursery
- I: Industry
- E: Education

**Appendix**

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[Table continues with various entries and grades marked with symbols like ☑️ and ☐️]
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179
## 5. School Analysis

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## School Analysis

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### Totals:

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### Overall totals:

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### Number of Students:

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This is a preliminary summary of staff interviews in the case study school. In reporting, I have not attempted to impose my own views on the data or to analyse the data in any way.

The documentation giving minimum levels of competence for the 16 year old suggests a school philosophy loosely connected with the world of work when it states that a 16 year old should 'understand the basic workings of society and be socially responsible.' (Nov. 1984).

The following questions were asked of 47 staff who agreed to be interviewed for approximately half an hour:

1. **HOW DO YOU PERCEIVE THE POLICY OF THE SCHOOL REGARDING PREPARATION FOR THE WORLD OF WORK?**

   - 18 staff thought that there was no policy and stressed the autonomy of individual departments to develop their own thinking.
   - 3 thought that there was 'something vague' but were unable to put it into words.
   - 11 considered there to be an interest in an understanding of, or an ethos concerning preparation for the world of work.
   - 12 interpreted policy to mean the work of individuals or work within specific curriculum areas.
   - 2 put their understanding of the school policy into words:
     - "to smooth the transition between school and work".
     - "to give an introduction to the world of work, and as a side-issue, to see some relevance to what they (the pupils) do in school."

2. **WHAT DO YOU THINK OF THE SITUATION REGARDING POLICY WHICH EXISTS?**

   Several problems were highlighted which suggested that the policy was difficult to implement:
   - the policy itself is not strong enough.
   - pressure of examinations.
   - lack of time for such preparation to be effective.
   - teachers' personalities affect the uptake of ideas.
   - too few people are involved in this area of the work.

   In one case, a school policy was perceived to be unnecessary, since Departmental policy was so strong in itself.

   Several deemed communication between Departments to be a major obstacle.

   A small element was fully supportive of the policy as it exists at present.
3. WHAT ARE YOUR OWN VIEWS?

The number of staff interviewed had many varied views reflecting the thinking about issues governing curriculum development in this field:

- work experience for all is required, with 3 or 4 placements, to give a broad introduction to the world of work.
- Education should be for Education's sake.
- schools should not become centres for vocational preparation.
- Is there any work? Is leisure equally important?
- unemployment is overplayed.
- preparation for the world of work is politically motivated—
  a. by the right wing, to maintain the status quo;
  b. by the left, to alter the status quo.
- the topic lends itself to lower ability pupils.

Active learning was perceived by some to be the most effective means of conveying information about the world of work. Such courses as Industry Awareness should, a few thought, be incorporated into the whole curriculum, rather than be regarded as a fringe activity.

4. HOW IS YOUR TEACHING INFLUENCED?

Roughly half of the staff saw this work as being of particular relevance to certain groups of children, e.g. older classes, academic forms, less-able pupils. They felt therefore, that this policy was not of direct concern to them because they did not teach these groups.

Several taught about the world of work in an unstructured way, whenever the need was seen to arise.

Others organised visits, brought the community into the classroom occasionally and provided situational topics for discussion. The extent to which teaching is influenced seems to be largely dependent on the subject area and how staff view the teaching of their subject.

5. IN THE LAST 5 YEARS, HAVE YOU FELT UNDER ANY PRESSURE TO CHANGE?

6 staff said that they had been under no pressure to change.

21 staff affirmed that pressure existed from a number of sources:

- the development of City and Guilds courses and Industry Awareness within the school.
- the social climate, affected by YTS, unemployment, vocational education trends.
parents, demanding better examination results, in the light of the social climate.

the forthcoming GCSE examinations.

6. WHAT IS YOUR KNOWLEDGE AND OPINION OF:

**YOUNG ENTERPRISE?**

Knowledge varied from virtually nothing to a basic understanding. Several staff were shareholders this year and some knew that there was a Presentation Evening held, and of past distinctions. A display was mentioned by some as their only means of contact with Young Enterprise. Most had little understanding of how it functioned. They were aware of the enthusiasm exhibited by the pupils involved, but noted that this varied from year to year. Young Enterprise was considered to be limited, elitist, middle-class, right-wing, an exercise in confidence-building, a good idea, impressive, inspiring, and an activity to be developed further in the school.

**UNDERSTANDING INDUSTRY?**

Few had heard of this scheme or knew anything of it. Some had gained an impression from pupils that some speakers from industry were unable to communicate topics effectively. Staff recognised Understanding Industry as a worthwhile activity in principle, but one which had impact on only a few individuals, rather than on the whole school.

**INDUSTRY AWARENESS?**

This was associated or confused with Understanding Industry or Young Enterprise. The experiential approach had aroused some interest, a small number of staff intimating that an INSET/CEO day would be appreciated along the lines of Industry Awareness/active learning.

**SCHOOLS' CURRICULUM INDUSTRY PROJECT (SCIP)?**

Most staff had not heard of this project, (previously Schools' Council Industry Project). Some were vaguely aware of its existence, but knew nothing of its functioning. A few confused SCIP with INDEL. One person linked SCIP with INDEL but was unable to explain the nature of the link.

**INDUSTRY-EDUCATION LIAISON IN COUNTY?**

There was a certain amount of hostility expressed towards the use of acronyms in Education. It was remarked that the ordinary classroom teacher cannot deal with these offshoots. Several staff linked --- with a person but were not certain of the nature of the work performed. Past involvement with --- was seen to be greater than at present. However, persons directly involved with school-world of work links in the curriculum acknowledge ---'s influence to a great extent.

Industry Awareness, City and Guilds (setting up a small business) Design a Kitchen Scheme Mathematics - Basic Skills Arithmetic Tests are areas influenced.
Knowledge of CRAC was shown in 3 areas of the curriculum, Careers, English and Industry Awareness. Opinions varied – resources are often unsuitable for age and ability, courses are expensive, it propagates some good ideas that have been used in the design of syllabuses.

7. DO ANY OF THESE IDEAS (from agencies mentioned) PERVADE YOUR TEACHING?

There were several negative answers here, but the idea of experiential learning (upheld by SCIP, though by no means new), seems to be having an effect, through discussion at Curriculum Development Committee meetings. Situation ethics and role playing and simulations are used in some classroom teaching.

A GENERAL COMMENT FROM STAFF ON CURRICULUM DEVELOPMENT IN THE SCHOOL.

The compartmentalization of the school was seen to be detrimental to the development of the whole person. According to many teachers, ideas need to be spread out more and to be followed by regular feedback. There is curriculum development in this area but it is slow, owing to the above constraint. Whilst pockets of great activity are observed, the overall view is that development is not systematic and does not gel. The examination system was also seen to hinder progress.

COMMENTS

There is a lot of work done with pupils to enhance their knowledge and experience of the “World of Work”. As has been pointed out this is in “pockets” and should be overviewed and reviewed – possibly by person i/c S.F. I will follow this up personally. The approach to work as we have known it, must of necessity change and I think that the “Life Style” approach may be more realistic.

Profiling, when implemented, could have a positive effect in encouraging more team teaching / blocking of certain subjects and the break down of subject islands.
QUESTIONNAIRE FOR 5TH YEAR PUPILS AT CASE STUDY SCHOOL

NAME____________________AGE_______FORM________

PLEASE COMPLETE THE FOLLOWING QUESTIONS AS HONESTLY AS YOU CAN. THERE ARE NO RIGHT OR WRONG ANSWERS, WE ONLY WANT TO KNOW WHAT YOU THINK. THE INFORMATION YOU GIVE WILL BE CONFIDENTIAL.

**************************

1. When you leave school, will you go to: Please tick

F.E. COLLEGE to do A levels or O levels?  
F.E. COLLEGE to do a Vocational course? e.g. Engineering  
The SIXTH FORM at another school?  
The YOUTH TRAINING Scheme?  
Straight into a JOB?  
ELSEWHERE?

If Elsewhere, please say where you intend to go. _______________________

2. What kind of job do you hope to get when you leave school, or at the end of your training?

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________
3. Which of these courses have you taken whilst at this school?

(i) UNDERSTANDING INDUSTRY

(ii) YOUNG ENTERPRISE

(iii) CITY AND GUILDS Foundation Course

(iv) The INDUSTRY AWARENESS COURSE as part of the Social Education Programme.

(v) OTHER COURSES which deal with the World-of-Work

(vi) NONE of these.

If you have ticked (v) OTHER COURSES, please give the NAME of the course(s):

_________________________________________________________________

_________________________________________________________________

4. Which of the courses above taught you a lot about the World-of-Work?

_________________________________________________________________

_________________________________________________________________

________________________

5. Have you had any teaching about the World-of-Work in your other school subjects?

YES

NO

UNSURE

If YES - in what subject(s) did this teaching take place?

_________________________________________________________________

_________________________________________________________________

_________________________________________________________________
6. Did you get the chance to meet people from outside school when you were being taught about the World-of-Work?

YES
NO

If NO, go on to Question 7

If YES, did they make you more interested in the World-of-Work?

YES
NO

7. Have you played any 'games' about industry and commerce in lessons?

YES
NO

If NO, go on to Question 8

Briefly describe the 'games' you played.

_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

Was it a helpful way of learning?

YES
NO

8. Have you been on work experience?

YES
NO

If NO, go on to Question 9

If YES, Was the work experience part of the City and Guilds Course?

YES
NO
Where did you do the work experience?

____________________________________________________________________________________

How long were you on work experience?

____________________________________________________________________________________

Was the work experience linked to the career/job you want when you leave school?

YES

NO

9. Have you had a part-time job outside school?

YES

NO

If NO, go on to Question 10.

If YES, what did you do?

____________________________________________________________________________________

10. (i) If you had to describe the World-of-Work to someone, what would you say?

____________________________________________________________________________________

(ii) Has your impression of the World-of-Work changed since coming to this school?

YES

NO

If NO, go on to Question 11

(iii) If YES, what do you think has changed your impression?

____________________________________________________________________________________
II. From which of these, did your knowledge come?

- School
- T.V.
- Newspapers
- Family
- Friends

Where did you get MOST of your knowledge from?

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

Thank you for your help